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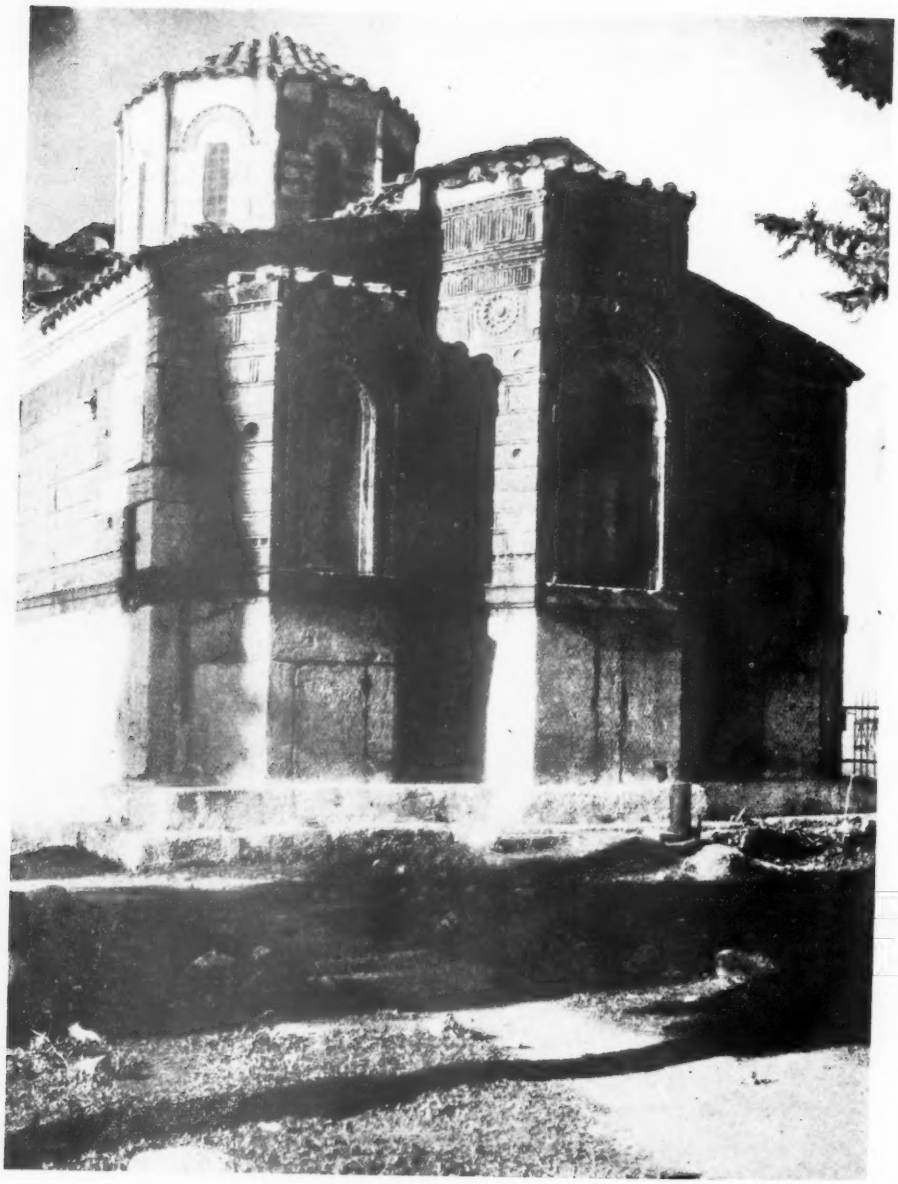


MERBAKA
Twelfth Century

JOURNAL OF THE
ROYAL INSTITUTE *of* BRITISH ARCHITECTS

VOL. 41. 3RD SERIES 21 JULY 1934 No. 17

Journal

The Committee which has been sitting under Lord Amulree's chairmanship to examine the problem of national housing has submitted a report* for the Government's consideration enlarging and developing the ideas outlined in an interim report last May. In addition to the Chairman the committee consists of the following members: Lord Balfour of Burleigh, Mr. Beddington Behrens, Sir Basil Blackett, Sir Edgar Bonham Carter, Mr. Alfred C. Bossom, M.P. [*F.*], Sir Theodore Chambers, Mr. B. Seebohm Rowntree, and Sir Raymond Unwin [*P.-P.*]—all persons who have had long and wide experience of work in housing, business or finance.

The central recommendation of the report is that a statutory Housing Commission should be set up to organise building on a ten-year programme over the whole of the country and to be responsible for a national survey of housing needs, to arrange for the supply of labour and materials in the light of long-term requirements, to stimulate research, to organise public utility societies, to devote attention to the possibility of decentralisation, and to supervise land purchase and to finance local authorities and public utility companies at trustee rates of interest. The Commission would have a full time independent chairman and a technical staff. The Committee state that housing of the lower paid workers at rents within their means is a national problem which cannot be solved by the unorganised operation of private enterprise—"neither the small builder nor commercial enterprise can profitably provide a house at an inclusive rental of not over 10s. a week without a serious lowering of building standards. If there is to be any alternative to Local Authorities the type of concern best able to meet the difficulties is undoubtedly some form of public utility society."

The proposal is made that a new three per cent. National Housing Stock should be created, fully guaranteed as to principal and interest by the Treasury. The money raised would be lent by the Commission to local authorities on the security of rates and to utility societies on the security of the houses owned by them. Assistance would be given to societies in two ways, first, by lending up to 90 per cent. of the approved cost, taking debentures as security and also, since if utility societies are to be established in sufficient numbers they cannot depend on philanthropy for the 10 per cent. balance, the Committee propose that the Commission should be empowered to provide in whole or part the share capital of approved societies whether already existing or newly formed. A local authority would have the power as at present of contributing on its own account the whole or part of the Ordinary share capital of a local public utility society.

The Committee claim that the need, which it puts at 1,000,000 new houses, to be let at inclusive rents of 10s. a week and under, should be met in a maximum period of ten years, and they stress their belief that the suggestions put forward are more likely to bring success than any others. " We would add," the report states, "that even if this were an ideal scheme, perfect in its details, it could only be successful if it were carried out with an unrelenting determination to see it through and to let nothing stand in the way of the attack on overcrowding and the slums. The prosecution of a scheme such as this must be undertaken partly in the spirit of a crusade and partly in the spirit which enables a business enterprise to plan and carry through developments, taking risks without hesitation and meeting unforeseen difficulties with decision and resource."

The Architects (Registration) Act Amendment Act, 1934, received the Third Reading on Tuesday, 17 April. The original Act provided that at least one half of the total fees receivable in each Kalendar year should be devoted to architectural education, but the Act did not provide the funds required for offices, registries, files, legal assistance and the general outlays necessary for establishing the register. Moreover, during the first year (1932) no fees were receivable. The Amending Act has authorised them to use for these purposes, the half of the fees referred to above accruing up to 1 January 1935. As soon as the educational schemes contemplated under the Act have matured, the half of the fees above referred to being available will be devoted to education as laid down in the original Act. Thanks are due, especially, to Lord Crawford and Lt.-Col. T. C. R. Moore, M.P., who guided the Act in its passage through the House of Lords and the House of Commons.

* *A National Housing Policy*. Report of the National Housing Committee. London. P. S. King and Son. 14 Great Smith Street, S.W.1. 2s.

The Highways Committee of the London County Council have made a bold recommendation to the Council that nearly £1,500,000 should be spent on the acquisition of land adjacent to the River Thames between County Hall and Waterloo Bridge with the intention of forming an embankment and gardens and of developing the rest of the land to the best possible advantage. This scheme will surely meet with a welcome, particularly from the R.I.B.A., which has advocated such development for well over twenty-five years, as earlier numbers of this JOURNAL will testify. In 1914 Mr. Paul Waterhouse read a paper to the Institute on "The Future of the Surrey Side," in which he described proposals put forward by the London Society, among which was a definite scheme for the construction of an embankment. The Institute and the London Society have not been alone in their advocacy of a scheme which has carried weight in the past, and will be welcomed now there is prospect of its achievement simply because it accords with the hopes of every Londoner.

There still remain some unsolved problems of the highest importance. The ghost of a new Charing Cross Bridge or the ogre of the existing bridge still haunt discussion, but as Sir Leslie Scott said in a letter in Monday's *Times* "it will be a great thing to make a start which will permit of a demonstration; for seeing is so much the essence of believing in the architectural planning of a city. If we are to create a public opinion in support of yet further development, there is no better means than building a first instalment of it, for people to look at."

The Minister of Health recently announced in the House of Commons the names of the members of the Committee appointed to deal with the question of the buildings involved in rehousing after slum clearance. We understand that the particular reference of the Committee will be to report on materials and methods of construction suitable for flats for the working classes, with special reference to efficiency and cost. The following members of the R.I.B.A. have been appointed: Mr. Henry V. Ashley [*F.*], Mr. George Topham Forrest [*F.*], Mr. Ian B. M. Hamilton [*A.*], Mr. L. H. Keay, O.B.E. [*F.*], Mr. Francis Lorne [*F.*], Mr. Stanley C. Ramsey [*F.*], Mr. A. Scott, M.B.E. [*F.*], Mr. J. Wilson [*F.*]. Sir George Humphreys, K.B.E., M.Inst.C.E., is to be chairman. The other members of the Committee are all engineers, and include Dr. Oscar Faber, O.B.E. [*Hon. A.*]. The secretary is to be Mr. A. Zaiman, whose services have been lent by the Department of Scientific and Industrial Research. Mr. Zaiman has been secretary of the Building Research Station for the past nine years, and will bring with him to the service of the committee an intimate knowledge of research in building which should prove invaluable. His presence promises a very close collaboration between the committee and the Station, which, while directly advantageous to the one, may point to a considerable and welcome extension of the work of the other.

	£	s.	d.
Brought forward ..	11,062	0	2
Mr. A. E. Anscombe [*A.*]	1	1	0
Mr. C. B. Bone [*F., Retired*]	2	2	0
Mr. H. S. Chorley [*F.*]	5	0	0
Messrs. Arthur W. Cooksey and Partners (Major R. A. Cooksey [*F.*] and A. Hugh Hasnip [*L.*])	2	2	0
Mr. Joseph Emberton [*F.*]	10	10	0
Mr. W. A. Johnson [*F.*]	2	2	0
Mr. Wilfrid E. Kelly [*A.*]	3	3	0
Mr. W. J. King [*F.*]	5	5	0
Messrs. Knapp-Fisher, Powell and Russell (A. B. Knapp-Fisher [*F.*], L. Powell [*L.*] and A. L. N. Russell [*F.*])	6	6	0
Mr. John Leech [*L.*]	1	1	0
Mr. A. H. L. Mackinnon [*F.*]	2	2	0
Messrs. Mendelsohn and Chermayeff (S. I. Chermayeff [*F.*], and Erich Mendelsohn)	10	0	0
Mr. Eric Morley [*F.*]	5	5	0
Mr. Percy Morris [*F.*]	1	1	0
Mr. H. C. Quérée [*L.*]	2	2	0
Messrs. Quiggin and Gee (Edgar Quiggin [*F.*] and Lt.-Col. Ernest Gee [*F.*])	5	5	0
The Sheffield, South Yorkshire and District Society of Architects and Surveyors	100	0	0
Mr. H. M. Spence [*F.*]	2	2	0
Mr. C. A. R. Swan [*L.*]	2	2	0
Messrs. Sydney Tatchell [*F.*] and Geoffrey C. Wilson [*F.*]	5	5	0
Mr. Charles W. Tomlinson [*L.*]	1	1	0
Mr. J. L. Webb [*L.*]	3	3	0
Mr. L. Langdon Williams [*L.*]	10	10	0

Total received or promised to 14 July, £11,190 10s. 2d.

The Farewell Dance which was held at the Institute on 16 July was an extremely spirited affair, full of what the *Evening News*, in its issue of Tuesday, 17 July, described as "that carnival feeling." This feeling was largely induced by the decorations, surely the most diverting and decorative that the Institute, in 100 years of social life, has yet seen. They were designed and executed by Mr. L. W. Thornton White [*A.*] and students from the Polytechnic, who paved the entrance hall with coloured footsteps, festooned the Meeting Room with broad bands of coloured paper and hung its walls with cartoons libelling not only the activities of the Institute but the appearance of its staff and senior members. The band was excellent, and in spite of the almost tropical heat of the evening over 150 people danced, drank, ate and gossiped till early in the morning. The last dance to be held in the old buildings was, suitably enough, one of the best, and thanks are due to Mrs. Slater, Lady MacAlister, Mrs. Lanchester and the members of the Social Committee who organised it so ably, and to Mr. Thornton White and his students for their successful and original decorations.

FIG. 14.—AGHIOS CHARALAMBOS, EUBŒA. 1400

BYZANTINE WALL BRICK IN GREECE

Part II

HUGH CASSON, B.A.

Before dealing in comparative detail with the infinite variety of Byzantine brickwork, it would be as well to define a rough boundary between the school of Constantinople and the North, and that of Greece. From the examples to follow it will be seen that Millet's theory of a Greek school entirely independent of Constantinople, is satisfactorily proved, with only a few exceptions. For the sake of lucidity and brevity the main differences of the two schools are compared under various headings.

1. FAÇADES

In Greece there is great love of gables, and multiplication of this motif is seen everywhere, especially in Athens.*

In Constantinople blind arcading is almost universal, and is only found once in Greece, at Geraki.

2. DOMES

Constantinople and Greece have more in common on this feature, though the Greek love of gables is easily seen at Holy Apostles, Athens, Omorphi (Fig. 17), Peribleptos Evanguelistra (Fig. 6), and Holy Apostles, Salonika. The horizontal effect found everywhere in Constantinople is also seen at Daphni, Monemvasia (Fig. 13), Skripou, and the Argive churches (Fig. 15). The dome over the narthex was another feature from Constantinople, and is found at St. John the Hunter and Kaissariani, but in both cases they are later additions. An interesting type of construction occasionally found is the transverse vault on the trefoil plan. Examples exist in Aghios Charalambos in Eubœa 1400 (Fig. 14), Aghios Petras, Salamis, and Panaghia, Eubœa.*

3. WINDOWS

Constantinople has few examples of mullions, and the majority of windows are three-light.

In Greece the octagonal colonnette is widely used both in domes and windows, and, except at St. Luke and Daphni, twin lights are more common.*

4. GABLES

(Fig. 15.)

The centre window with two supporting half-arches is a universal motif, adopted through its obvious suitability for the position. There is one difference, however, between Greece and Constantinople, which is, that, as a

* An asterisk has been used throughout the essay to indicate that the MSS. copy in the R.I.B.A. Library contains photographs and/or drawings in addition to those referred to in the text in illustration of the building or detail so marked.

rule, the relieving arches are lights in Constantinople, and blind in Greece. At Mistra, as is to be expected, both are found. In Athens they are quadrants: at Nauplia and Arta, demi-arcs.*

5. Apses

(Figs. 4, 7, 10, 22.)

In Constantinople almost invariably treated with two courses of blind arcading.*

6. Brick and Stone Technique

The *assise unique* or brick zone is the peculiarity of Constantinople. In Greece there is parament cloisonné: see above for fuller discussion on this point (Chapter IV).

7. Friezes

In Constantinople there is no Cufic nor slant-cut ornament to be found till the fourteenth century. The most popular pattern is the diaper, and the skew dentil cornice. (Fig. 20.)*

In Greece there is the universal skew dentil, and frequent use of cufic ornament. (Figs. 2, 5, 10 and 20.)*

These general tendencies are more fully dealt with in the next chapter, but are sufficient to bear out M. Miller's theory.

CHAPTER VI
EXAMPLES AND MONUMENTS

The vast subject of decorative brickwork is best dealt with under six headings.

1. In combination with stone.
2. Arch treatments.
3. Apses.
4. Gables.
5. Friezes or bands.
6. Domes.

Each monument will be dealt with on the six headings, those in Greece being taken first, and in rough chronology.

Skripou. *Ninth century.*

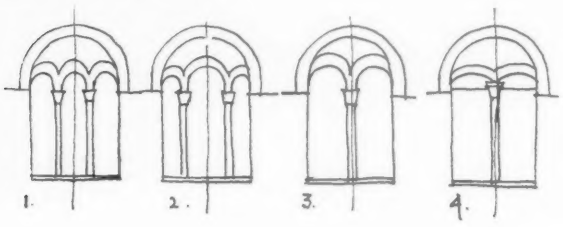
This church, built largely of antique fragments, has little brickwork. There is a frieze of skew dentils, which encircles the entire building, except the west front, and is the earliest example of this motif in Greece.* (See above.)

St. Luke of Stiris. *Eleventh century.*

1. Although Wheler calls this church "*la plus belle église que j'aye vu dans toute la Grèce*," the exterior effect cannot be said to be successful, and is rather restless, both in conception and execution. It is built of marble blocks from an antique site, squared Tufa and common red bricks with wide joints. The facework is irregular, and odd spaces are filled up with brick fragments. Corner stones, cills and plinth are of marble. Brick is employed wherever difficult stone-cutting would have been necessary. The small church is still more elaborate, being built almost entirely of small Tufa blocks.

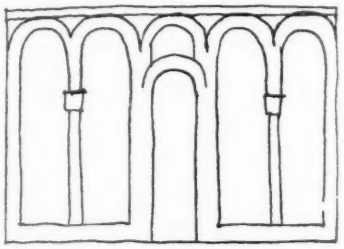
2. *Arch treatments* (Fig. 1). On the South side is an arcade of large-span arches in brick, rather heavy in execution and crushing in appearance. On the north side is an arcade, with triple opening, consisting of one *voussoir* course of bricks, surrounded by a course of brick on edge. They form abutment for the five courses of skew dentils which fill the spandrils. This treatment is original, and gives a pleasing relief to the uniformity of the arcade.

It is on the windows, however, that most variety is found. There are four main types.



1. Three light under one arch. (N.W. Upper storey.)
2. Three arches of different radii. (S.W.)
3. Twin arch. (All sides.)
4. Twin flat arch. (S.W.)

There is also rather an interesting gallery, the gynæceum, on the East side, which is shown in the accompanying sketch.



3. *Apses.* In the large church the arched window was the governing factor in the elevational treatment of the apse: this left no space for anything except localised "band" effects. Here the apse is divided into three strongly marked horizontal zones. The plinth is of roughly coursed stone, and from cill to springing line of window is plain brickwork. From springing to crown, brick courses alternate with skew dentils, becoming parament cloisonné, but with two brick courses between each stone instead of the usual one. The cornice treatment from eaves downward is:—

1. One course of *moellons* (roughly coursed).
2. Marble cornice.
3. One course of *moellons*.
4. One course of skew dentils.

In the small church the elevational treatment is more carefully designed, and there is a fine system of surface decoration. Between the courses are lines of skew dentils, and infinite variety of cufic ornament in the vertical joint. Each of the three apses has a continuous frieze of cufic ornament at cornice level, and the central apse has three friezes.

4. *Gables or Tympana.* The universal treatment in the big church is the three-light window supporting one arch and two relieving half-arches,* the whole enclosed in one large brick arch, two courses deep. The spandrils are filled with tufa and brick fragments.

In the small church the large relieving arch encloses a small twin-light window; the spandrils being filled with cufic ornament.

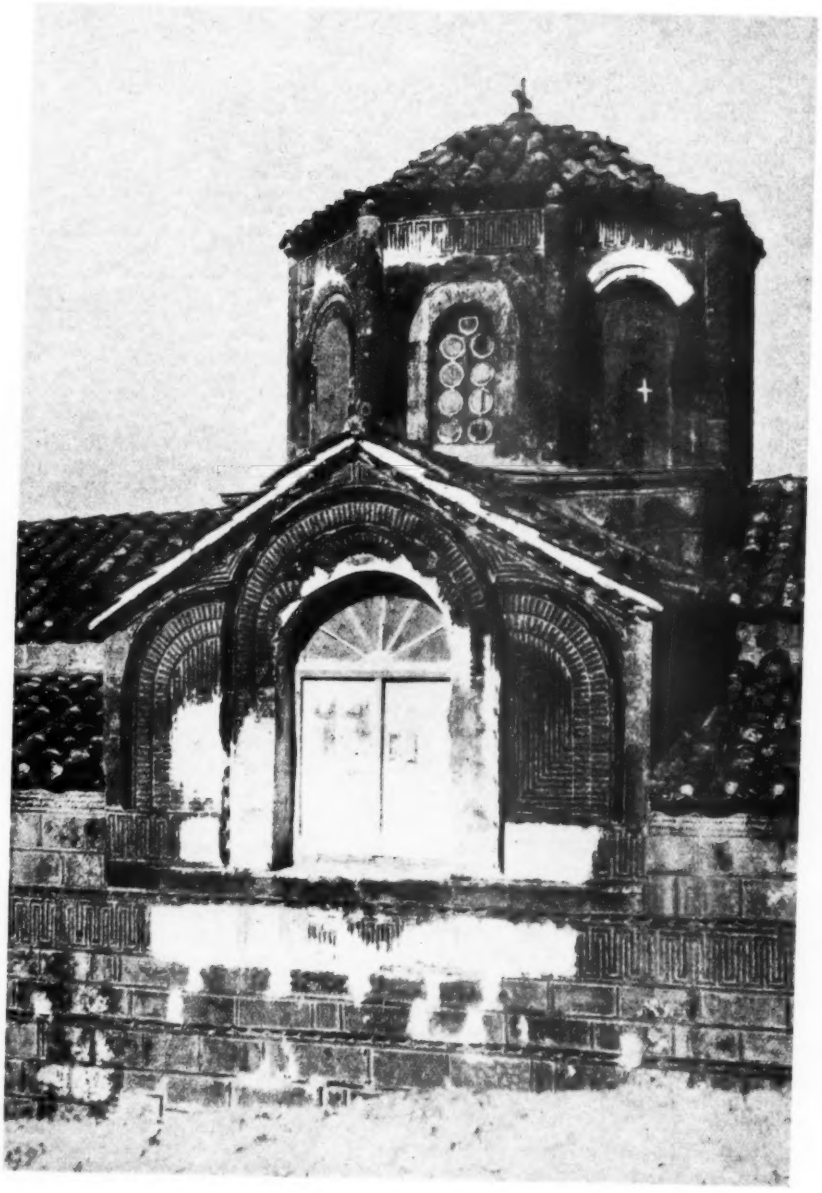


FIG. 15. HAGHIA MONI. Twelfth Century

5. *Friezes.* Apart from the skew dentil bands on the north side, the only friezes to be found are those mentioned above, on the east façade. In the large church there is a clumsy fret in the spandrils of the upper windows.

In the small church bands of skew dentils encircle the entire building, and the bands of cufic designs on the apses are the finest in existence.

6. *Domes.* In the large church, up to the springing of the dome windows, the stonework is comparatively careful. At this point it changes into plain brickwork, and so continues up to the cornice, which is formed of three oversailing courses of skew dentils.

In the small church also the octagon treatment is more elaborate, and at each angle there are slender marble colonnettes. Up to the springing line of the window are slabs in richly carved relief, giving way to plain brickwork and the skew dentil cornice.

In regard to this church M. Couchaud remarks that the brick technique used, while frequent from the ninth to eleventh centuries, disappears in the twelfth and thirteenth centuries, except in Constantinople. This fixes the date of St. Luke as not later than the beginning of the twelfth century. The whole monastery has been thoroughly surveyed and described by Mr. Weir and Mr. Barnsley.

CHURCHES OF THE ARGIVE PLAIN

Haghia Moni (*twelfth century*)

1. *With stone.* This church is built in careful parement cloisonné, the stone being brown limestone. There is a strong clamping effect on the corners, and large marble crosses are inserted on the north and west façades.

2. The *arch treatments* of the windows are simple twin-lights, enclosed in an arch two courses deep, and a course of skew dentils. In the tympana were set faience bowls. Fragments of these still remain, and their colours are as gay, and their glaze as sleek, as on the day they were fired.*

Fig. 16.—Kaissariani

3. The *apses.* (Fig. 10.)* The main feature of the centre apse is the three-light window—twin-light in the smaller apses. Above the crown is a band of simple fret, separated by two courses of skew dentil from a band of double fret. The cornice is of marble. The side apses have no fret band.

4. *Gables.* (Fig. 15.)* This popular Greek feature was usually filled in the following manner. The central three-light window is supported by two blind half-arches, filled with brick patterning—in this case a mitred design. The south gable is an example of very careful workmanship, the bricks and joints averaging ¾ inch thickness each. The fret pattern and this infilling are the neatest examples of Byzantine brickwork existing to-day. The faience bowls are turquoise colour with incised floral designs.

5. *Friezes and bands.* (Fig. 2.)* A fret pattern 13 inches high runs round the north-west and south façades of the church, with a course of skew dentils above, two stone courses below the eaves. As noted above, the workmanship is very careful, as the design would lose its character if executed with thick mortar jointing.

The centre apse has a large fret—see above—and skew dentils below cill height. There is also a band of slant-cut brickwork in step pattern below the cill.

6. The *dome* (Fig. 15) is octagonal, with engaged columns at the corners, similar to Monemvasia and Daphni. It is built of brown limestone, and below the eaves a fret pattern appears.

Church at Chonika (*tenth century*)

1. *With stone.* This church is built of careful parement cloisonné on very similar lines to those of Haghia Moni. The corners are clamped with marble blocks, and the plinth is of marble. Cufic ornament appears on all façades at the springing level of the door arches.*

2. The *arches* of the windows are two brick courses deep, surrounded by skew dentils. They are of no great interest. In the side apses they are similar to Kaissariani (Fig. 16). The door arches are heavy, four courses deep, and are bounded by skew dentils.

3. *Apses.* The centre apse is simply designed, with the usual three-light window as its main motif. The marble plinth finishes at cill height with a course of brick step pattern, a course of skew dentils, and a marble string course, which unites all three apses with a strong horizontal emphasis. The three apses are of careful cloisonné work, and there is no cornice.

4. The *gables* are destroyed, though there is evidence to show that the treatment was similar to that employed at Haghia Moni—*i.e.*, two blind half-arches, supporting the centre window. On the north façade there is no trace left, but on the west façade remains of the mitred design can easily be discovered.

5. *Friezes and bands.* A course of skew dentils runs round all elevations, except the east, at about 7 feet from the ground, and also at eaves height. There are no fret bands, but an attempt is made at cufic ornament on the north and west façades. The step-pattern is found on all three apses.

6. The *dome* in this church is a stone octagon, but without engaged columns. It is very simple, almost austere, in design, and one course of skew dentils forms the only cornice.

MERBAKA (*twelfth century*) (*Frontispiece*)

1. *With stone.* The plinth, like that at CHONIKA, is of marble slabs, culminating in a marble string course. Above, the walls are in careful cloisonné work with brown limestone, and marble corner-stones. In the north and east façades are marble reliefs from a neighbouring antique site, one of which has recently been extracted by thieves. All the walls are pitted with holes which once held faience bowls, and on the south and west elevations are slabs of champlevé work, in floral and piscatorial designs. There are one or two examples of cufic ornament, and many of the vertical bricks are slant-cut into various designs.*

2. *Apses.* The three apses are joined by a marble string course at plinth level, assisted by a course of skew dentils, which enclose the windows as well. Reference to the photograph will show the arrangement of the various fret and step-pattern bands. The window in the centre apse is flanked by engaged colonnettes with foliated capitals of Gothic spirit. On the south side of the centre apse one of the stones is carved into a wheel design. The side apses are similar in design.*

3. *Gables.* On the south and west façades they are exactly similar to those noted above. On the north façade, however, the infilling is divided across by a course of skew dentils, the mitre pattern reversing itself below this division. The remaining space is treated with brick fragments and faience bowls, many of which still remain.

4. *Friezes.* A course of skew dentils encircles the entire building above the plinth, being only interrupted by the marble corner-stones. On the north, south and west façades, one stone course below the eaves is a strong band of fret, repeated on the centre apse. Step-patterns occur only on the apses.

5. *Dome.** There is one novel feature on this stone octagon, with its engaged marble colonnettes. At the springing height of the dome window arches, the cloisonné gives way to a herring-bone brick pattern, which is carried up to the eaves. Only traces of this remain under the plaster which now covers the dome.

CHURCH AT DAPHNI (*twelfth century*)

1. *With stone.* It is built of brown limestone, in careful cloisonné, which gives an air of extreme severity. The only decoration is confined to the window and apse treatments.*

2. The *arch* jointing is careful, averaging $\frac{3}{4}$ inch in thickness. On the north and south façades the windows are three-light, the centre one being very stilted. The infilling under the enclosing arch is in rough patterning with brick fragments. In the upper storey of the north façade are twin-light windows. These window designs have recently been restored by M. Benouville.*

3. *Apses.* The large scale of this church permitted a second storey of windows to be introduced into the centre apse; the upper part of which is built of brick. The lower window of three lights supports on its crown, in great discomfort, the upper single-light window. Above this are two courses of skew dentils, enclosing a fret pattern. The smaller apses have two-light windows and an eaves course of skew dentils.*

4. The *gables*, as existing to-day, are left completely plain. M. Benouville, however, has suggested a treatment, which involves the use of a circular window. There seems little evidence for this.*

5. *Friezes.* A marble string course runs round the building with a course of skew dentils above. Apart from the band of fret on the centre apse there is no other ornament.*

6. The *dome* is rather similar in design to ST. SOPHIA, MONEMVASIA (Fig. 18), and the polygonal dome has fat engaged columns at the corners. A simple cornice is formed of two courses of skew dentils.*

MONUMENTS IN ATHENS

KAPINKAREA (*eleventh and twelfth centuries*)

1. *With stone.* The cloisonné work is rather clumsy. Fairly elaborate cufic ornament remains in the west wall of the narthex, and also in the south wall.

2. *Arches.* Except for the twin-light examples in the apses, the windows are single-light throughout, with two-course deep arches, bounded by a course of skew dentils. The twelfth-century porch forms an arcade on piers of arches two courses deep.

3. The *apses* are built of careful cloisonné and are linked by a marble string course at cill height. Two courses of skew dentils form the only other ornament.

4. *Gables.* The Greek love for gables finds full expression on the west façade, where there is a range of four. The central feature in each gable is a single-light window, supported by small blind half-arches, with an infilling of cufic design. The south gable has a twin-light window with an infilling also of cufic design.

5. *Friezes.* Courses of skew dentils form the only frieze decoration, and appear at the base of the gables, and on the apses only.

6. The *dome* is an octagon in cloisonné with marble colonnettes at the corners which support arches in a gable motif, similar to that at OMORPHI and ST. THEODORE, Athens.

ST. THEODORE (*twelfth century*)

1. *With stone.* This church is built of brown limestone in careful cloisonné. Below the plinth string course various brick sizes are used.*

2. *Arches.* All windows are twin-light, even in the dome, except on the north side. The spandrils are filled with faience bowls and rough patterning with brick fragments.

3. The *apses* are very simple in design; they are linked by a string course, and a course of skew dentils. Some slant-cut brickwork occurs in the centre apse.

4. *Friezes.* Only one course of skew dentils makes the complete circuit, but is repeated on the west and north gables. On the west façade there is a continuous course of cufic patterning across the gable, formed by terra-cotta plaques 6 inches by 14 inches in size. There are similar bands across the north and south gable, but cufic characters do not occur, except in one panel in each case. There are nine panels on each gable.*

5. The *gable* treatment on both north and south façades is normal, consisting of twin-light windows beneath a single arch, supported by two blind half-arches. A course of skew dentils marks the base of the gable in each case.

6. The *dome* is similar to that at KAPNIKAREA and OMORPHI. In the tympana of the windows the infilling is in cufic design.

HOLY APOSTLES (*eleventh century*)

1. *With stone.* (Fig. 5.)* Up to the springing height of the east window arches the stonework is roughly squared, with brick fragments as infilling; above that level, and below on the north and south elevations, the stonework is careful. There are two brick courses between each of stone, and all the vertical joints are filled with cufic lettering in various designs.

2. *Arches.* The windows, except in the apse, are all twin-light, one course deep, and bounded by skew dentils. They are not enclosed beneath one arch.

3. The *east apse* has as its central feature a three-light window. Five courses of skew dentils, with a stone course between each, continue round to the side apses.

4. *Friezes.* (Fig. 5.) Five courses of skew dentils make the complete circuit, and form strong, horizontal links between the various components of the building.

5. The *dome* is similar in design to the other Athenian churches. The windows are twin-light. There is, however, no cufic ornament, and only one brick course between the stone courses. The dome is now plastered.

OMORPHI (*eleventh and twelfth centuries*)

1. *With stone.* Up to a height of 4 feet from the ground, the wall facing is of large irregular blocks and brick fragments. Above that is parement cloisonné, with one brick course between each of stone. A string course divides the two techniques. Although so near to Athens, there is no cufic ornament.

2. *Arches.* The windows are of stone, except on the north façade, where the surround is a course of skew dentils, which step out to enclose the marble cill in an unusual way. The tympanum of this window is of similar design to that in the south apse at CHONIKA and KAISSARIANI (Fig. 16).

3. The *apse* is very austere in design; a string course of marble forms the only decoration. There is no cornice.

4. The *gables* are built of parement cloisonné, their only decoration being the twin-light window, which forms the central feature.

5. *Friezes.* There are no examples in this church.

6. *Dome.* (Fig. 17.) Marble colonettes and gable arches form the Athenian style of dome design. A marble cornice, now destroyed, has been replaced by a course of skew dentils.

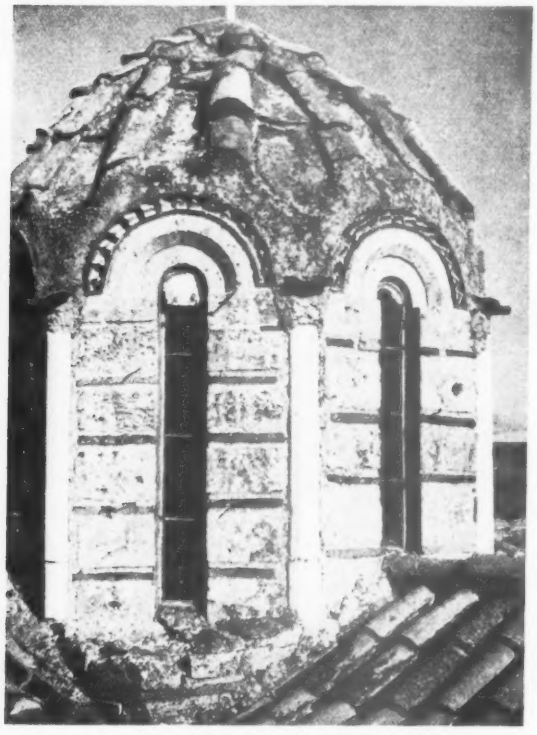


FIG. 17.—OMORPHI
Eleventh and Twelfth Centuries

ST. JOHN THE HUNTER (*twelfth century*)

This church is now plastered all over and whitewashed, making investigation practically impossible. There are traces of parement cloisonné in the dome, which has engaged colonnettes. There are no skew dentils to be seen, and the windows tympana show no signs of complicated infilling. The main feature of interest in this church is the dome over the narthex, an idea of Constantinople and found also at Kaissariani. It is probably a later addition.*

ST. SOPHIA, MONEMVASIA (*twelfth century*) (Fig. 18)

1. *General.* This church has been pulled about by successive generations, and has now a large two-storeyed Venetian porch on the west façade. The original church was of parement cloisonné.

2. The polygonal *dome* (Fig. 13) is the main feature of interest. The cloisonné work has two courses of brickwork, instead of the more usual one, and at the corners are fat engaged columns as at DAPHNI. The window arches are two courses deep, and the cornice is formed of two courses of skew dentils.

MISTRA

ST. THEODORE (*1296*)

1. *With stone.* This church has been so restored as to have been almost rebuilt, especially in the east end. It was originally built of rubble, with cloisonné on the east side only, where a considerable proportion remained before restoration. The rubble was very roughly coursed.

2. *Arches.* The windows in the apse and gables are twin light, elsewhere they are single light, and enclosed in one course deep arches with a course of skew dentils.

3. The *apse* walling up to the cill line is of rubble. The twin-light window contains a faience bowl. The rest of the apse is in cloisonné. There are three courses of skew dentils, one at arch-crown level, another the two stone courses higher, then a stone relief plaque with skew dentil surround, and a final course of skew dentils. A lower course, at cill level, carries along the entire east façade.

4. The *gables*, though restored, have their original patterning, the usual motif forming the central feature. A twin-light window containing a faience bowl is abutted by two blind half-arches, each containing bowls. The remaining space is divided by a course of skew dentils into small areas of diamond and herring-bone patterning, giving a very rich effect. Strictly the gable is a tympanum, as the roof line is semi-circular.*

5. *Friezes.* One course of skew dentils makes the entire circuit at plinth level. The remaining friezes stop short after running the length of the east façade.

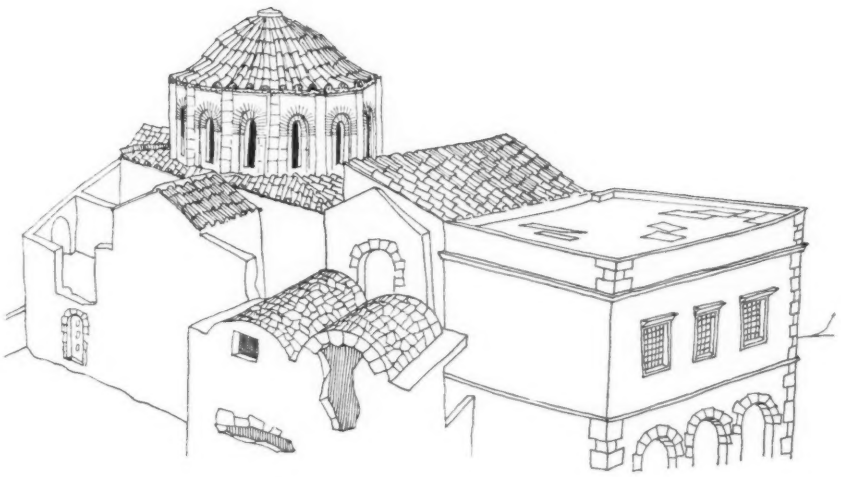


FIG. 18.—ST. SOPHIA, MONEMVASIA
Twelfth Century

6. The *dome* is somewhat similar in appearance to the dome at MONEMVASIA, and the strong horizontal emphasis is reminiscent of Constantinopolitan technique. It is of circular plan, in brick, with short stone engaged columns between the windows, which are deeply recessed. There is a skew dentil cornice.*

METROPOLE (*1310*)

1. *With stone.* This church has been built on to in all directions, and only the original east façade is visible. There is strong evidence to show that the whole church was of cloisonné, except below plinth level. The brick courses are usually single, but occasionally double.

2. *Arches.* These are two-light windows with blind supporting arches, the whole enclosed under a large brick and stone arch. The panels are plastered, and are decorated with floral designs in blue paint.*

3. The *apses* (Fig. 4) are linked by a marble string course, and a course of skew dentils at the springing height of the centre apse window, a two-light example. The rest of the apse is plain cloisonné, with a two-course, skew dentil cornice.

4. *Friezes.* There are no decorative bands, except a single course of skew dentils at window-head level.

5. *Gables* on the west, north and south are filled with a large arch enclosing a twin-light window and its half-arch supporters. In restoration rectangular windows have been inserted. The middle gable is similarly treated, with the addition of two courses of skew dentils round the large arch, and relief plaques instead of half-arches.

6. The *dome* is polygonal and small in design, it has gables over the windows, with a skew dentil cornice. Between the stone colonnettes, supporting the window arches, are niches. The whole dome is strongly marked by three brick courses between each stone course.

BRONTOCHEION (*1311*)

1. *With stone.* This church is built entirely of uncoursed rubble, except for a belfry in cloisonné work. It is in a good state of preservation. At regular intervals there are bands of two-course brickwork. On the north façade, pilasters run up to form blind arcading under the eaves.

2. The *windows and arches* on the north side are three-light, enclosed beneath a large two-course relieving arch. The stone voussoirs of the door arches are separated by two brick voussoirs. In the belfry, on the ground floor, the arch is of this nature; above is a three-light window, with a slender brick relieving arch; above are three small blind arches, the centre one enclosing a niche, semi-circular in plan. The tympana of the side arches are filled with zig-zag patterning.

3. The *apses* are all three of the same height, with strong horizontal bands of brick at regular intervals. There are two storeys of blind arcading, the centre apse containing seven, the side apses two- and three-course arches. The springing lines are marked by a horizontal brick band. Above the lower arcade in the centre apse are three windows, one in each face, and the blind arcading is repeated at the eaves.

4. There are no friezes in this church.

5. *Gables.* On the south façade are three gables, the external expression of a vaulted roof over an aisle divided into bays. The result is an interesting elevational treatment, giving great scope for brick patterning. Every inch of space is filled with rich design, to which the large mortar surround gives full value, and which is prevented from becoming mechanical by the irregularity of the bricks themselves. (A measured drawing by A. L. Mcmullen of these gables was recently published in *The Architects' Journal.*)*

6. The main *dome* no longer exists, and the small ones are octagonal, with gable arches over the windows, and built in rather clumsy cloisonné.

Peribleptos (*1315*)

1. *With stone.* Except on the south side, where it is in rubble, this church is in careful cloisonné. The chapel below the church is of rubble, with a cloisonné apse on corbels. The refectory tower is also in cloisonné.

2. *Arches.* The windows are of stone, except in the south gable. In the refectory there is a round window, with a course of skew dentils above, which supports a three-cornered window of late and unpleasant design, enclosing a stone trefoil, and flanked by two inches in brick.

3. *Apses.* The three main apses are very simple, the centre one containing only a window. Above this are two carved bosses, projecting about 3 inches. Each apse has a skew dentil cornice, but at different levels, the cornice of the side apses being continued round the building.

The chapel apse projects on corbels and is fully described by the drawing.

4. *Gables.* The east gable contains a square plaque in stone-relief. The south gable has a two-light window, resting on a course of skew dentils, which enclose the window and also the two half-arches, two courses deep, which abut on to it. Below these half-arches are two square carved panels, framed in skew dentils.*

5. The *dome.* (Fig. 19.) The engaged colonnettes of this octagonal dome support arches over heavily recessed windows, giving a new variation to the gable theme. In this case it is not very satisfactory as the projection is such as to give an appearance of top-heaviness. The chapel dome is similar but less boldly carried out.

St. Sophia (*1350*)

1. *With stone.* The west and north façades are of uncoursed rubble, the east and south of cloisonné. All the cloisonné is careless in workmanship, and the brick courses vary in number from one to three.

2. The *apse*, as in all the churches at Mistra, is of very simple design, with a central feature of a single-course arch. The cornice is of two courses of skew dentils.

3. The *gables* are very richly decorated on both west and south façades. The north gable has a two-light window under one arch, the tympanum being filled with geometric design. Abutting on to this are the two half-arches enclosing a herring-bone pattern. Below are panels in diaper and zig-zag patterns. The south gable is similar, but the patterning is all herring-bone.

Evanguelistra (*1300*) (Fig. 6)

1. *With stone.* As with St. Sophia, this church is built of rubble, with an east end of cloisonné; though the latter is rough, and the horizontal and vertical bricks vary greatly in number.

2. *Arches.* (Fig. 20.) The south porch has two two-course arches meeting on a marble pillar. They are enclosed by a course of skew dentils, the triangular relieving arch butting on to the porch encloses a panel of herring-bone pattern.

3. The *main apse* is, as usual, a simple design, incorporating a single-light window at plinth level, and another two courses below the eaves. The side apses have only lower windows. There is no cornice.

4. The *north gable* is treated exactly the same as at St. Sophia, and is described above.

5. The *dome* is round in plan, windows alternating with niches. It is built in rough cloisonné, with two bricks in each vertical joint. Over each window is a projecting arch on corbels, giving a slight gabled effect to the roof.

Pantanassa (*1430*)

1. *With stone.* This church is built in very careful cloisonné, except on the west façade, where it is rubble. The west and south façades are treated with two-storeyed blind arcading. On the north side the lower arcade projects to form a domed cloister.

2. The windows are identical in treatment with those at the Metropole described above, and are similarly linked by a course of skew dentils at their springing line.

3. The *apses* (Fig. 21) are interestingly decorated with an entirely novel stone and plaster technique of inverted arcading. The brick is used most successfully with the stone, the broad mortar joints preventing any harshness. There is a course of skew dentils at plinth level, and they also form the cornice.

4. The *dome* is circular in plan, and built in rough cloisonné. The belfry is four storeys high, and crowned with a conical dome. Each storey has a three-light window beneath a pointed arch, and on the second storey is a row of three circular windows enclosing trefoils.

Note.—With reference to all these monuments at Mistra, mention should be made of Mr. Byron's good work. In his book, *The Birth of Western Painting*, he drew attention to the lamentable state of preservation into which these churches had fallen. Many were roofless, all were crumbling. I was glad to note on my visit last winter that the work of preservation, largely initiated, so

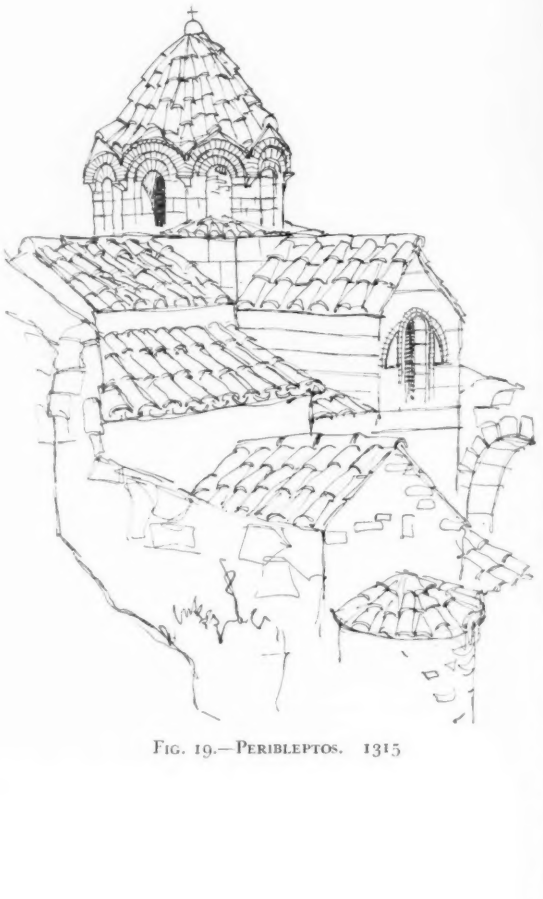


Fig. 19.—Peribleptos. 1315

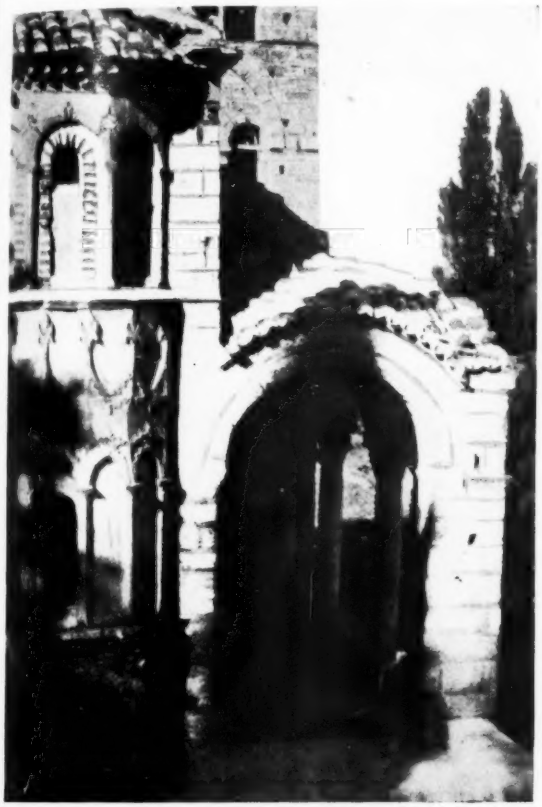


FIG. 21.—PANTANASSA, MISTRA. 1430

Mr. Miller tells me, by this book, was then in progress, and by now will have been practically completed.

SAGMATA (*early twelfth century*) (Fig. 23)

This church is built of rough cloisonné. The dome was lost in an earthquake in 1914. The gable and turret treatment is worthy of notice, and is for that reason illustrated. The only brickwork of interest is in the central apse, where there are two examples of slant-cut work.*

PANAGHIA, VATHIA (*thirteenth century*)

This church is built largely of classical fragments and brown limestone. Brick fragments fill up odd spaces. Below the skew dentil cornice on the apse is a band of herring-bone pattern. On the south door, encircling the arch, is a course of slant-cut bricks. The main interest in this church lies in the transverse vault, which is of rare occurrence.

SALONIKA

The town of Salonika was recently destroyed by fire, but fortunately nearly all the Byzantine monuments were preserved. ST. DEMETRIUS (fourth–sixth centuries), however, was almost completely destroyed, and with it the finest mosaics in Greece. It is now being rebuilt, and had reached clerestory level by last February. With one exception—the Church of the HOLY APOSTLES—the brickwork is of little interest, and will be only briefly noted.

ST. SOPHIA (*eleventh century*)

The eaves cornice is formed of three courses of skew dentils. Over the south aisle, gallery and narthex are colossal relieving arches in brick, two courses deep.

ST. ELIAS

This church is almost entirely of brick. The windows are blocked with diamond and diaper pattern. In the tympana are geometric patterns. An interesting forecast of Lombardic arcading is to be found on the main apse, crowned with three courses of skew dentils.*

ESKI DJOUMA (*fourth–sixth centuries*)

This church, built of brick, has been thoroughly surveyed by Mr. Gourlay, and the results of his investigations were published in the R.I.B.A. JOURNAL, 1906, Volume XIV, No. 2.

H. PANTELEIMON

Although of brick and stone, brick forms a far larger component of the structure of this church; the brickwork itself is, however, of little interest. The gables contain three-light windows,

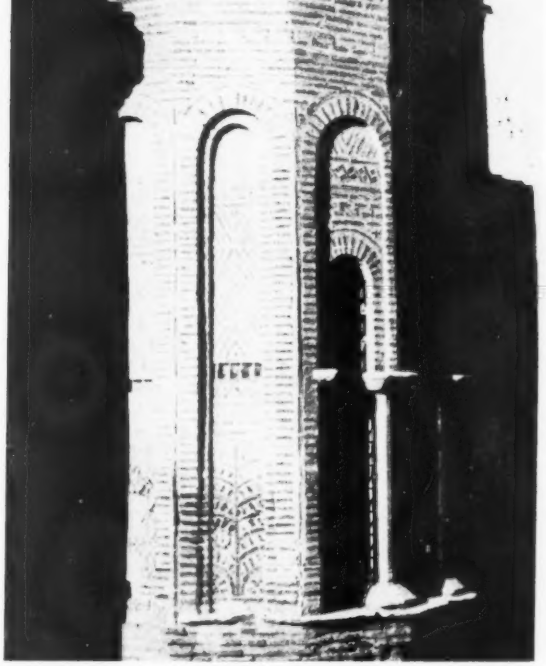


FIG. 22.—HOLY APOSTLES, SALONIKA. 1315

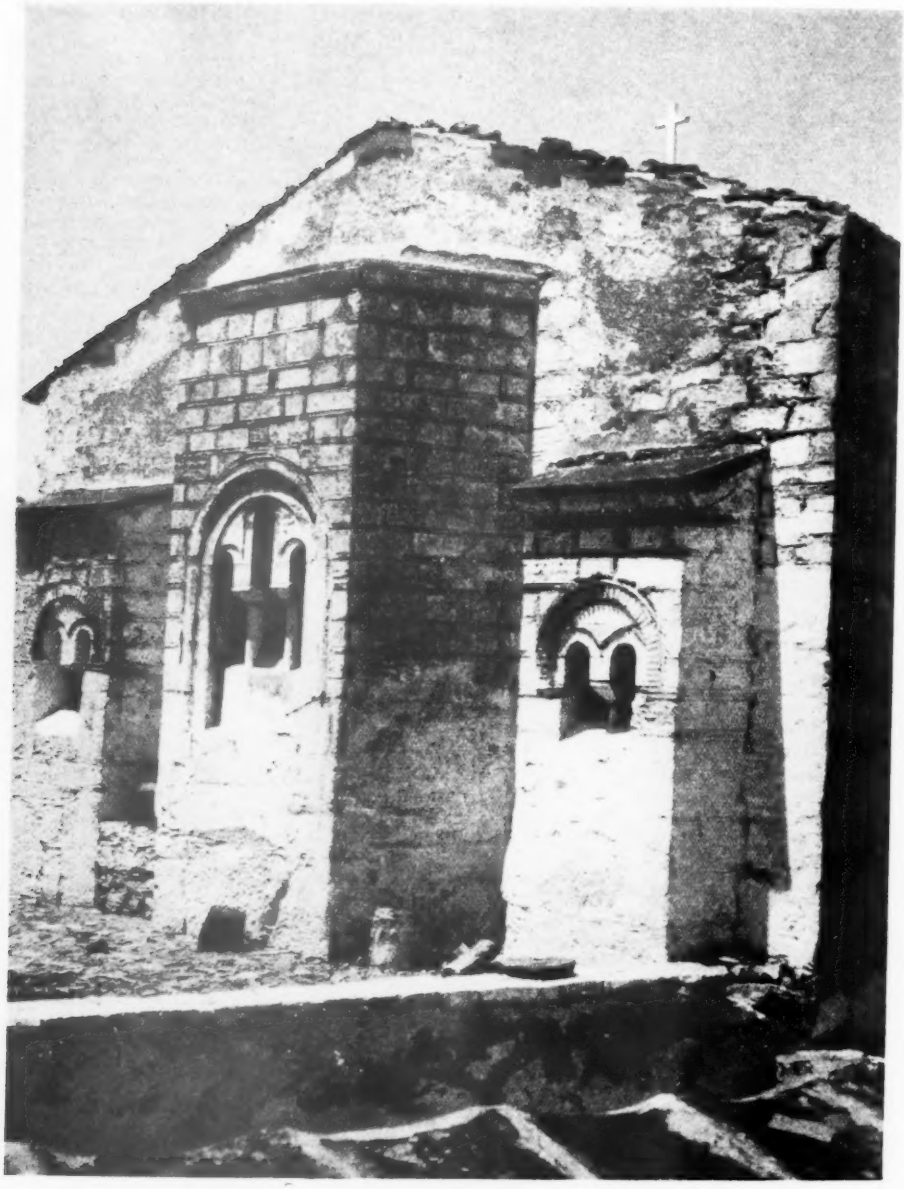


FIG. 23.—SAGMATA
Early Twelfth Century

under two-course relieving arches. The brick dome is similar in design to that of the HOLY APOSTLES. In the apse are wheel and star patterns, and the cornice is of skew dentils. There is a blind arcading on the south side, enclosing "ray" designs in brickwork.

PANAGHIA TON HALKEON

This is a small church on a sunken site, built entirely of brick. There are two domes. One has horizontal eaves, and a cornice of skew dentils three courses deep. The other is treated with gables in the Greek manner. The north and south windows are in two storeys enclosed in panels with deep reveals, with rather pleasing results. The church has been recently colour-washed a strong pink colour.*

ST. NICHOLAS OF THE ORPHANS

This is a very small church, built of brick, but with several interesting features. The east and west gables both have interesting patterning in diaper design. The east end has two blind windows with patterned panels inside, and a step pattern is found on the apse. This church is definitely Greek in spirit.*

HOLY APOSTLES (*1315*) (Figs. 7 & 22)*

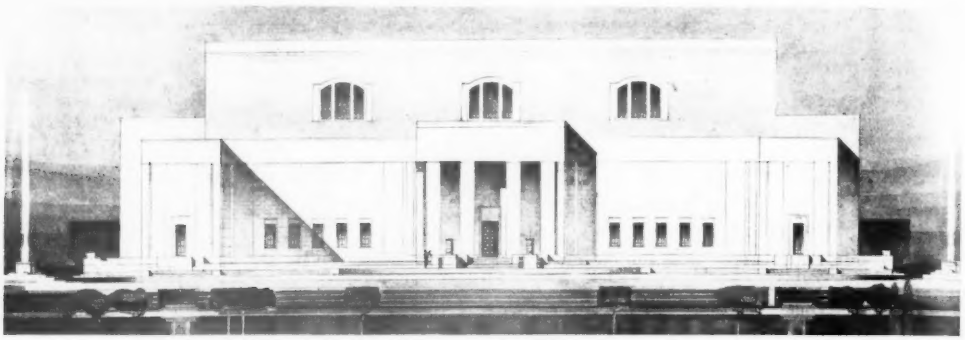
This church is built of brick, with occasional stone courses.

The gables are filled with two-light windows, beneath two-course relieving arches. The arches have stone voussoirs alternating with groups of five brick voussoirs. The tympana are filled with brick patterns in cufic designs in infinite variety. None are the same, as the drawings show. The domes are octagonal with engaged brick columns carrying arches over heavily revealed windows in the Greek gabled effect.

It is in the apses that the brickwork surpasses itself. They are treated with blind arcading, each panel being filled with storeyed patterns of unparalleled richness. Wheels, stars, herring-bone, diaper, check diagonal and stepped—the patterns succeed each other in bewildering confusion. The result avoids a garish effect by profuse use of mortar, which is coloured almost the same tone as the brick. Reference to the drawings will indicate some idea of the variety of design and decorative achievement.

FIG. 20.—EVANGUELISTRA, MISTRA. 1300

Concluded



THE ROME SCHOLARSHIP IN ARCHITECTURE

CRITICISM ON THE DESIGNS SUBMITTED FOR THE 1934 COMPETITION

BY ARTHUR J. DAVIS, A.R.A.

The work of the candidates for this year's Rome Scholarship in Architecture, exhibited at the Royal Institute of British Architects, shows on the whole a fairly high standard of design and presentation, although no scheme of outstanding merit has been produced.

The requirements of the programme have generally been followed, and the buildings do not display that regrettable exaggeration in size and elaboration which was characteristic of some exhibitions in former years.

The programme called for a building in which would be exhibited examples of the applied art of the past and present generations, and it was evidently intended by its position and its setting to form an attractive and impressive monument, worthy of the City in which it would form one of the principal ornaments.

It was one of the conditions of the programme that masonry should be used in preference to a steel framed or reinforced type of construction, and it is regrettable that one of the most promising candidates has ignored this condition and has been disqualified in consequence.

This matter of disqualification is a difficult one for the jury, as it often rests on a question of degree in the departure of the candidate from his esquisse, or from some essential requirement of the programme. A certain latitude must of necessity be extended on the development and study of the schemes, which in their main lines must follow the esquisse, but the competitors must always realise that the alterations in their plans or the ignoring of certain definite clauses in the programme is attended by considerable risk, as the jury may decide that the original conception is changed in such a drastic manner that disqualification must ensue.

The design No. 8, "*Esta*," by Mr. F. A. C. Maunder, of the Armstrong College, Newcastle-on-Tyne, was awarded the Rome Scholarship.

The plans have a straightforward, well-balanced appearance, displaying the qualities of dignity and suitability which such a building should possess.

The proportions of the building masses and open courts is happy, and the grouping of the various parts well conceived.

The plan is symmetrical and its essentials can be easily grasped, also all full and complicated details have been avoided.

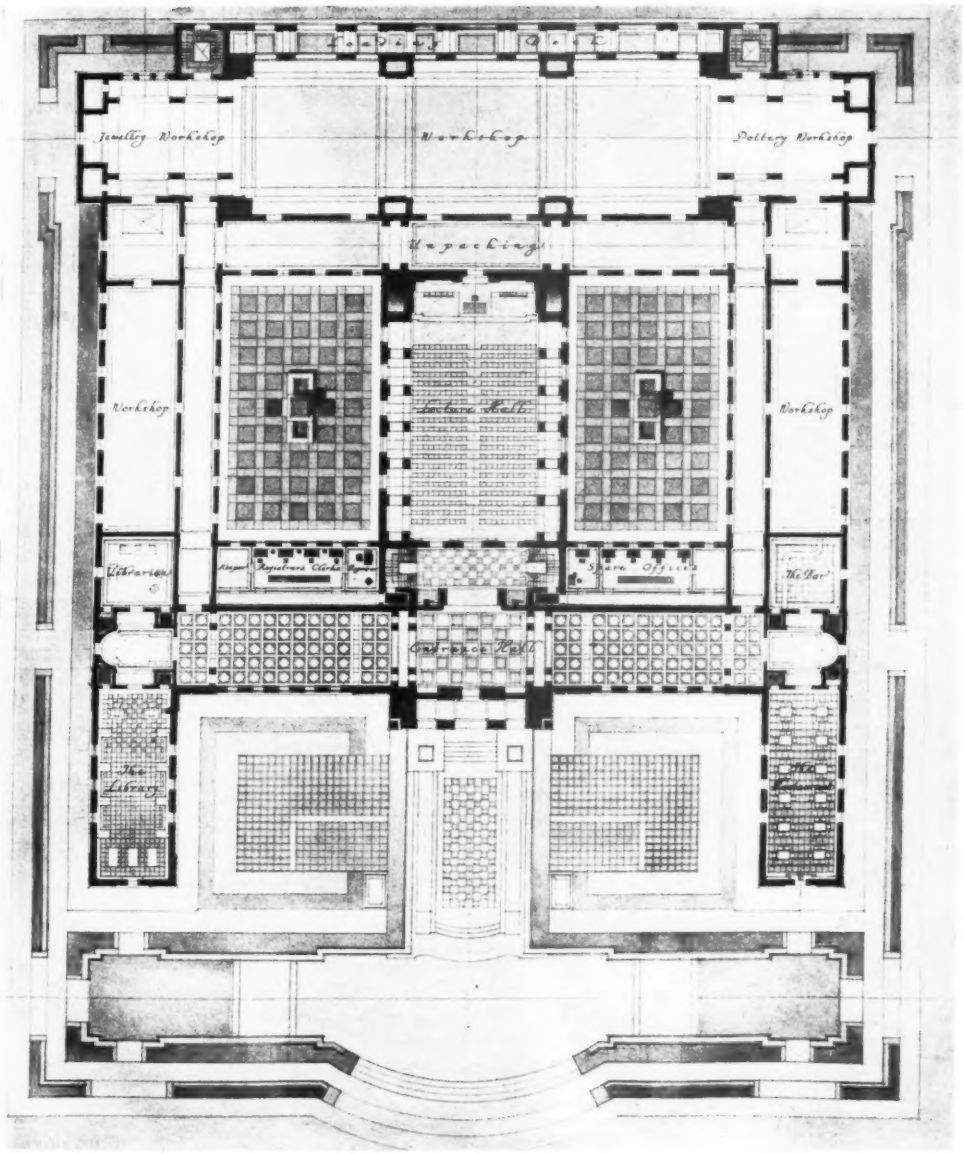
However, Mr. Maunder has in his final scheme departed considerably from his esquisse, and it would not have surprised me if he had been disqualified.

He evidently found trouble in placing his administration offices, which he originally intended to be planned on two floors on the front of the building with a wide connecting corridor behind, but later, thinking that they would be too prominent in that situation, he relegated them to positions overlooking his courts. The result is not altogether satisfactory, as this department is divided into two entities separated by the public access to the main hall.

He also found some difficulty in his treatment of the lecture hall, which in his esquisse appears to go through two floors with side galleries, or balconies, and in the final design is divided by a floor which makes the space available for two large rooms. This may merely be a mistake in the written description on the plans, anyhow his intention is uncertain and cannot be checked, as no section was required in the esquisse.

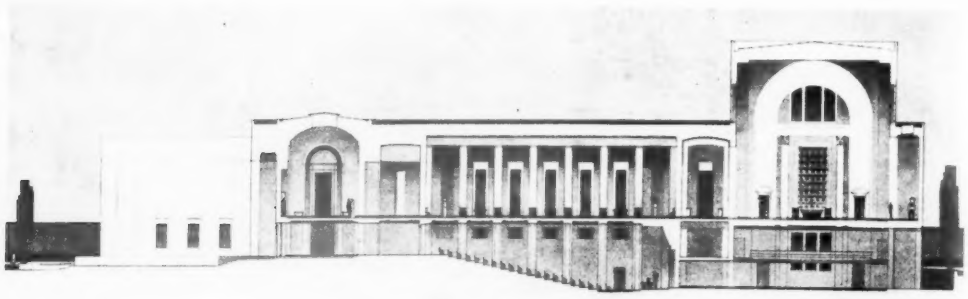
The two staircases shown on either side of the main axis are out of scale. They are too small and hardly suitable for a building of such a monumental character.

The main circulations are good and the ability to close one or two galleries without interfering with the other exhibition rooms is commendable.



GROUND FLOOR PLAN OF MR. F. A. C. MAUNDER'S WINNING DESIGN

This and the other blocks of the Rome Scholarship winning design have been lent by the "Architects' Journal"



SECTION OF THE WINNING DESIGN

Although in a building of this type the space for workshops should be ample the size of these is greatly exaggerated in this scheme. Evidently the competitor having planned the first floor to his satisfaction did not quite know how to utilise the space underneath and therefore simply described all the unused area as "workshops."

The access to the lecture hall is direct but it has a possible defect in that the same approach is used for the upstair galleries, and if a lecture were finishing at the same time as the closing of the galleries confusion might ensue.

The great hall, if somewhat overwhelming, is well designed and of a simple and dignified character, but it may be criticised as being uneconomical—in these days of limited finances—and too much has been sacrificed to style.

The quality of the elevation is certainly far below the standard set by the plans. The architecture is unimaginative and rather dull.

Why did Mr. Maunder start to design a plain unrelieved portico and then introduce, at the angles, two unnecessary square piers carrying carved capitals?

I have dwelt rather much on the defects of this scheme, but on the whole I consider it the best sent in and worthy of the distinction it has been awarded.

No. 1. "*Ictinus*," by Mr. R. H. Macartney, of the Architectural Association.

This student shows that he has an original mind, but his scheme displays a certain lack of taste.

The general arrangement of the galleries is satisfactory, with good communication, but marred by the introduction of unpleasant curved shapes both on plan and in elevation.

The administration offices are well grouped but the internal courts are too large.

No. 2. "*Paul*," by Mr. Alan Reiach, of Edinburgh College of Art.

Mr. Reiach has probably found the most economical solution of the problem. He has produced an admirable scheme where all the direct and straightforward qualities are remarkable and most departments seem to be in their right place.

Needing more accommodation on the first floor than he required on the ground floor he has simply left large open spaces, which could be used for open-air exhibitions or any similar purpose.

Recognising the tendency of museums to subordinate architectural treatment to the requirements of exhibitions, he has introduced no decorative features. This is right in principle, but he has carried it quite beyond suitable limits. In a building of this sort economy is not the only essential quality.

In his scheme there seems to be insufficiency of head room on his main staircase and his lifts discharge in places which are too narrow.

There are unpleasant intersections of lintols in the main hall which is apparently only 18 feet high.

The circulations are excellent, as access can be obtained to any of the galleries when one of them is closed.

I do not understand why Mr. Reiach did not slope the floor of his lecture hall. By keeping it flat the platform becomes too high, the audience would sit in strained attitudes and the lecturer would have the lights shining in his eyes.

On the whole this is a remarkably clever scheme in the modern manner and I am very sorry that Mr. Reiach has been disqualified by not following one of the important conditions of the programme.

No. 3. "*Gab*," by Mr. A. Bullen, of Liverpool University.

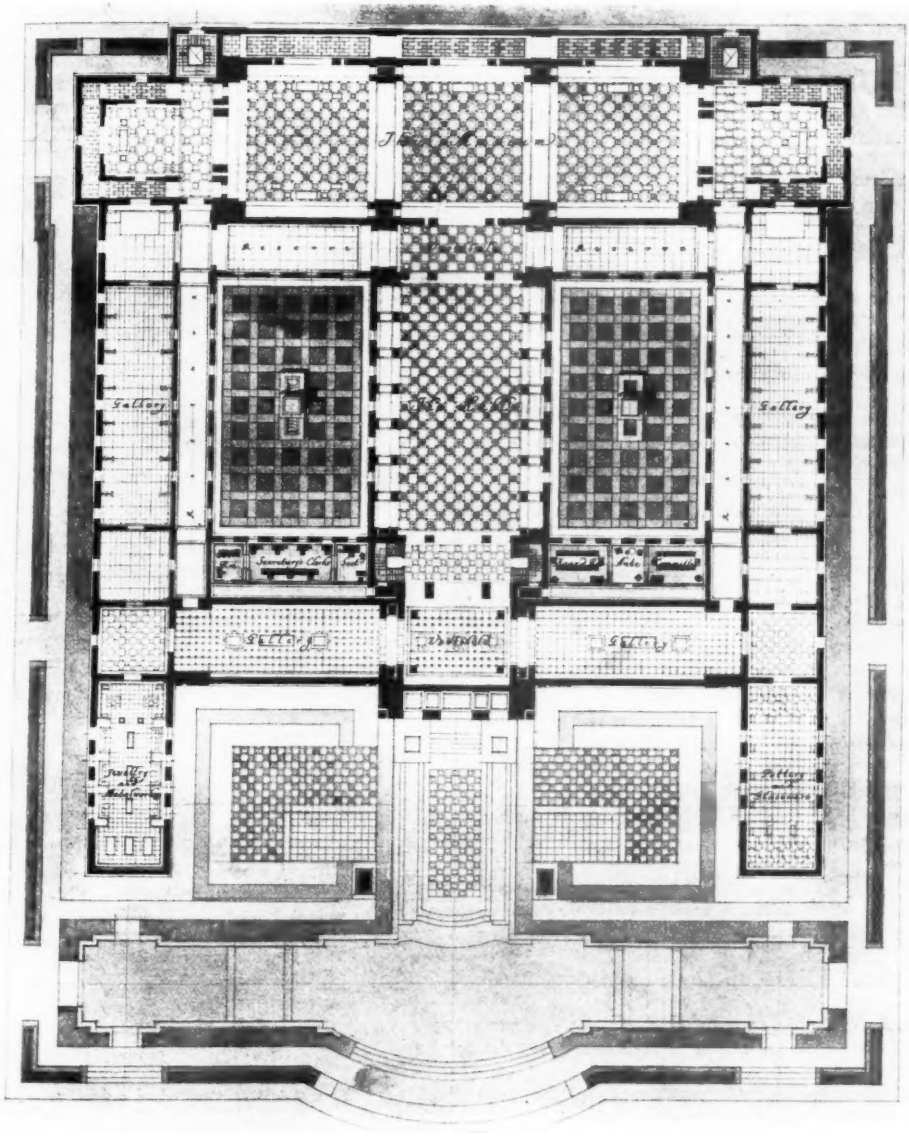
An interesting and well-studied design, the main lines of which are reminiscent of the winner's.

A fine hall on the first-floor plan is rather spoilt by the straight staircase which cuts a chunk out of it.

The hall is a fine architectural feature, somewhat too monumental in character, with the entrance at the back of the composition—an excellent arrangement.

The administration offices are well situated and connected.

The circulations on the first floor next the lecture hall are spoilt by the introduction of heavy features.



First Floor Plan

The main elevation is rather dull, three great arches, not shown on the esquisse, add neither dignity nor character to what might otherwise have been a very fine design.

No. 4. "*Ula*," by Mr. G. A. Crockett, of London University.

This is a simple straightforward scheme with many qualities, but the plans have been presented upside down, making them difficult to read.

The courts appear to be too large and there are too many entrances for proper supervision.

The elevation is somewhat clumsy and does not suggest the character suitable to such a building.

The monotonous treatment of the walls of the lecture hall would be uninteresting and the shape of the entrance hall is too complicated.

No. 5. "*Dodo*," by Miss E. Mayorcas of the Architectural Association.

The design is well presented but the esquisse is insufficient.

The great internal court which at first appears as an original feature is only used to light the corridors, and the sections show that it would not be suitable for any other purpose.

The corridors are too narrow and the entrance hall, in the form of a gallery with side alcoves, is indifferently treated.

The vestibule on the first floor is spoilt by small massive piers, unevenly spaced, separating it from the catalogue room.

The exhibition galleries are adequate and well arranged.

The elevation is somewhat reminiscent of the Permanent Building at the recent Paris Colonial Exhibition. It would no doubt produce an effective result, but the rooms on the front under the upper part of the colonnade would be insufficiently lighted.

No. 6. "*Ritz*," by Mr. H. H. Castle, of Leeds College of Art.

A clever design with a good esquisse, but the plan is too confined. The introduction of superfluous staircases on the front absorbs space which might be used to better advantage and there are too many entrances giving opportunities for burglars.

The lecture hall is supported by unnecessary internal columns.

The galleries are well arranged and the scheme is to be commended for a well-studied goods entrance at the rear.

In section the exhibition hall is too high.

The elevation is uninteresting and the windows are badly proportioned.

No. 7. "*Romeo*," by Mr. H. Bennett, of Manchester University.

This scheme has considerable merit, but the shape of the lecture hall is not very good. The plan is not sufficiently studied and the great hall is clumsy and unnecessarily high for its width.

The elevation shows a good central block but behind it is a great unpleasant cliff wall. The elevation in the esquisse is, in my opinion, far better than the one produced or suggested in the final design.

No. 9. "*Midge*," by Mr. M. G. Gilling, of Liverpool University.

The draughtmanship is excellent and on the whole the scheme is creditable, but the drawings are rather badly arranged on the sheet and difficult to follow.

The plan shows that the author has not made the most of the space at his disposal. He has reduced his great hall by unnecessary little alcoves, merely because he wanted them on the staircase landings.

There is too much space given to administration and storage and not enough to the gallery exhibitions.

The elevation is one of the most satisfactory in the room. It has qualities of refinement and scale—and the sculpture is well placed.

Mr. Gilling has provided a good lecture hall and the general interior treatment, as shown on his sections, is pleasant.

No. 10. "*Marcus*," by Mr. W. W. Fisk, of the Architectural Association.

His drawings are well presented and the general scheme has merit, but there are no large fine rooms although the plan occupies a great space.

The doors to the administrative department all open on a monumental gallery described as "vestibule." The half landing to the museum staircase forms part of a foyer to the lecture hall and this is certainly not a good arrangement.

In section the lecture hall seems to dominate the plan.

The best thing about this scheme is the elevation which is appropriate and in scale, and to anyone approaching the exhibition it would suggest the use for which it was built.

No. 11. "*Brutus*," by Mr. H. B. Allsopp, of Liverpool University.

Well presented plan, but bad communications have spoilt the galleries which in themselves are well proportioned, but no one of them could be closed without interfering with the general circulation.

I do not care for the lecture room's being placed on one side of the plan balanced by a library, of a poor shape and proportion, and galleries with no alternative communication.

Mr. Allsopp is a good draughtsman and his rendering is full of charm.

No. 12. "*Berl*," by Mr. T. Clokey, of Liverpool University.

He has produced an interesting solution of the problem but his presentation is rather unpleasant.

The plan is compact. A fine staircase faces one on entering and gives a vista right through the main hall. Side flights provide an excellent approach to the lecture room.

The arrangement of the administration group shows the same mistake as in the winner's design, as this department is divided into two sections separated by the main entrance.

The museum is too small and intersects the circulation of the galleries.

The treatment of the elevation is rather brutal and lacking in imagination, the two long windows in the side pylons are out of harmony with the central portico.

No. 13. "*Chance*," by Mr. S. W. J. Smith, of the Royal Academy Schools.

This scheme has merit but the drawings are insufficiently rendered.

The staircase arrangement is defective. Only one—quite inadequate—small circular staircase is shown to serve this large building. It is actually in a turret and lands in a hole-and-corner way, completely destroying circulation on the first floor.

The goods department and reserve stores are too large for their requirements.

The exhibition galleries are of bad proportion and confused planning.

There are too many entrances for easy supervision.

The elevation is faulty in proportion—three small windows on the first floor over an elaborate portico are rather out of harmony with the great mass of the flanking pylons.

No. 14. "*Kit*," by Mr. R. Hartley, of Liverpool University.

Well presented scheme and good draughtsmanship; but the exhibition galleries are badly proportioned, being too narrow for their length. This remark applies also to the board room.

The administration offices are insufficient and the workshops too small. The square court at the back of the plan only lights the corridor.

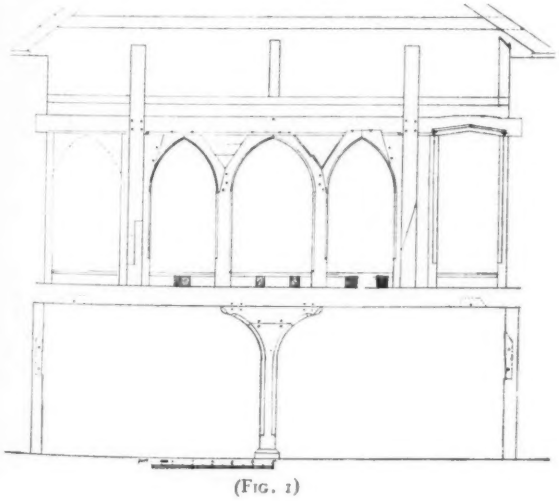
The elevation consists of one great uninteresting wall with a central portico. The composition suggests exaggerated simplicity leaning towards crudity.

Polsloe Priory, Devonshire

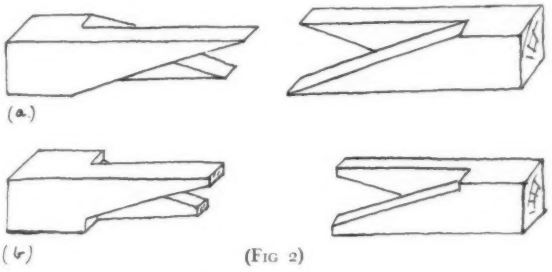
AN EARLY SCARFED JOINT

Mr. A. W. Clapham, the secretary of the Society of Antiquaries, has forwarded some correspondence he has received with reference to an old wood screen in Polsloe Priory, about two miles north-east of Exeter, where a number of interesting discoveries have recently been made, including the foundations and a fragment of a twelfth-century church and a considerable portion of the building supposed to have been the guest house of the Priory attributed to the thirteenth or early fourteenth century.

At the south end of the guest hall on the upper floor is an oak screen of five openings (Fig. 1), the centre three of which are flanked by two 9½ by 9½ oak posts, which, in addition to supporting the screen, helped originally to hold the roof timbers immediately above them. The interesting thing about these posts is that when they were erected it was found necessary to lengthen them by 1 foot 3 inches in one case and 2 feet 6 inches in the other. It is difficult to determine what made this necessary, because the original length was not over 18 feet, and there should have been no great difficulty in obtaining single timbers of that size.



(Fig. 1)



(Fig 2)

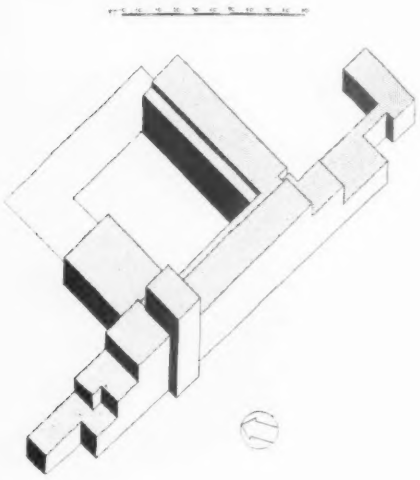
The joint of the two pieces that go to form each post is the most interesting thing about the screen, and is the earliest example of which we have record of a double splayed and halved scarf. It would be interesting to know if any member of the Institute has come across an earlier example, and if anyone can show when this scarf developed into its later and more perfect form, as shown in Fig. 2 (b), in which the feather ends are cut back to make a shoulder capable of bearing some of the weight.

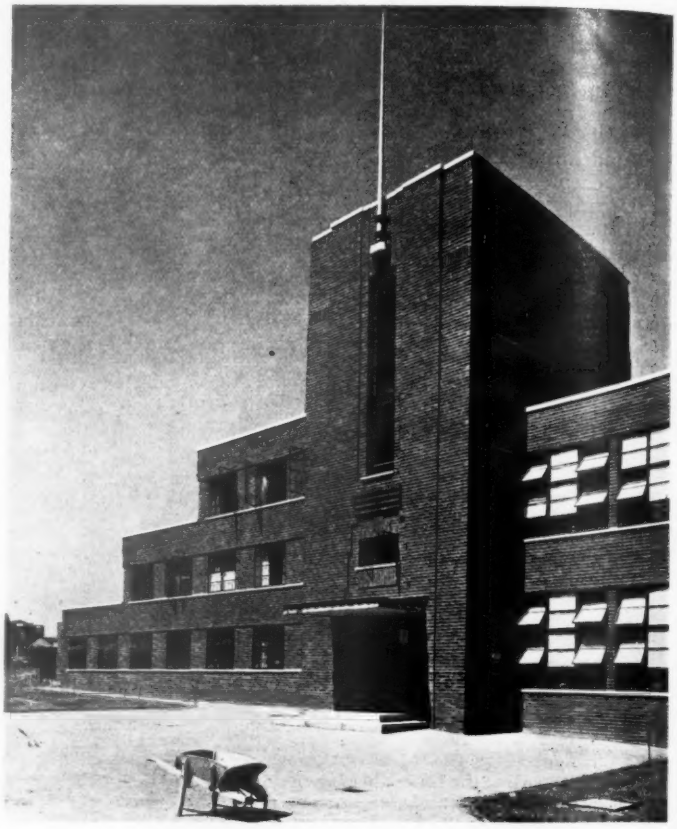
Mrs. Rose-Troup, who has drawn Mr. Clapham's attention to this work, writes that "an effort is being made to preserve this specimen of domestic architecture, which is particularly interesting, as there have only been three nunneries in the county (Devon)—Canonsleigh, Cornworthy and this one. . . . The destruction of the remains of the Priory is threatened . . . in order to build cottages on the site, so an effort is being made to persuade the City Council of Exeter to purchase the land upon which the building stands to be used as a park in the somewhat crowded area of Pinhoe." Our thanks are due to Mr. A. W. Everett, of Exeter, who has been responsible for most of the excavation and research, and who made the drawings which are reproduced here.

THE NEW SCHOOLS *of the* MIDDLESEX COUNTY COUNCIL

County Architect: W. T. Curtis [F.].
Assistant Architect for Educational Buildings: H. W. Burchett [A.].

The following buildings are illustrated: Oakington Manor Council School, Wembley; Pinner Park Council School, Headstone Lane, Pinner; Locket Road Senior Council School, Harrow Weald (under construction). The cost of this new type of building is from £20 to £33 per school place as against £38 to £41 per place of the older type.





The main entrance of Oakington Manor School, the first of the new schools. This was built with a steel frame. On the left is an axonometric showing the massing and demonstrating how the construction gives freedom in planning

The recent elementary schools of the Middlesex County Council are of interest principally as examples of a new technique in school design that has resulted from a study of costs. When, following the financial crisis of 1931, the Council decided that the cost of new school buildings had to be drastically reduced, the County Architect decided to investigate the problem from the beginning rather than to follow the obvious path of attempting economies in existing methods. It was felt, in the latter case, that economies such as would result from the use of smaller timber scantlings, cheaper bricks, joinery or plaster finishes, or more flimsy fittings would only reappear as debits in maintenance and repair accounts. The Board of Education declined to permit departure from accepted standards of accommodation, though permission was given to reduce classroom heights by one foot.

THE OLD CONSTRUCTION

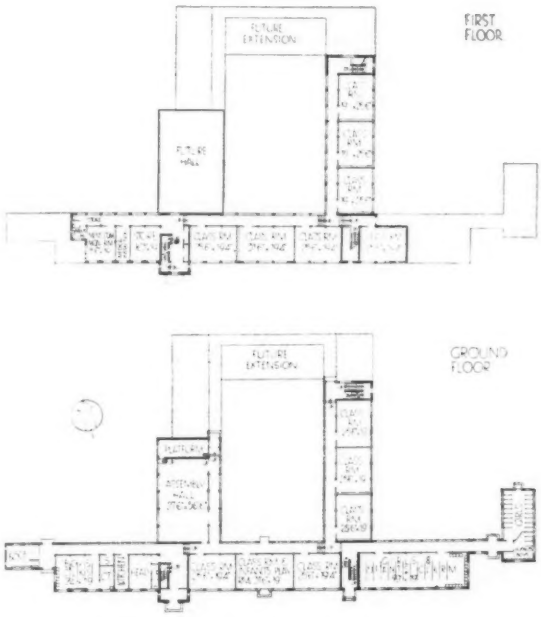
Up to the time of the financial depression the typical construction consisted of 14-inch brick walls faced with multi-coloured bricks, a

pitched roof covered with sand-faced tiles, fully plastered interiors and wooden windows. The general design was domestic in character in order to prevent the buildings looking "institutional." These schools cost from £38 to £44 per place.

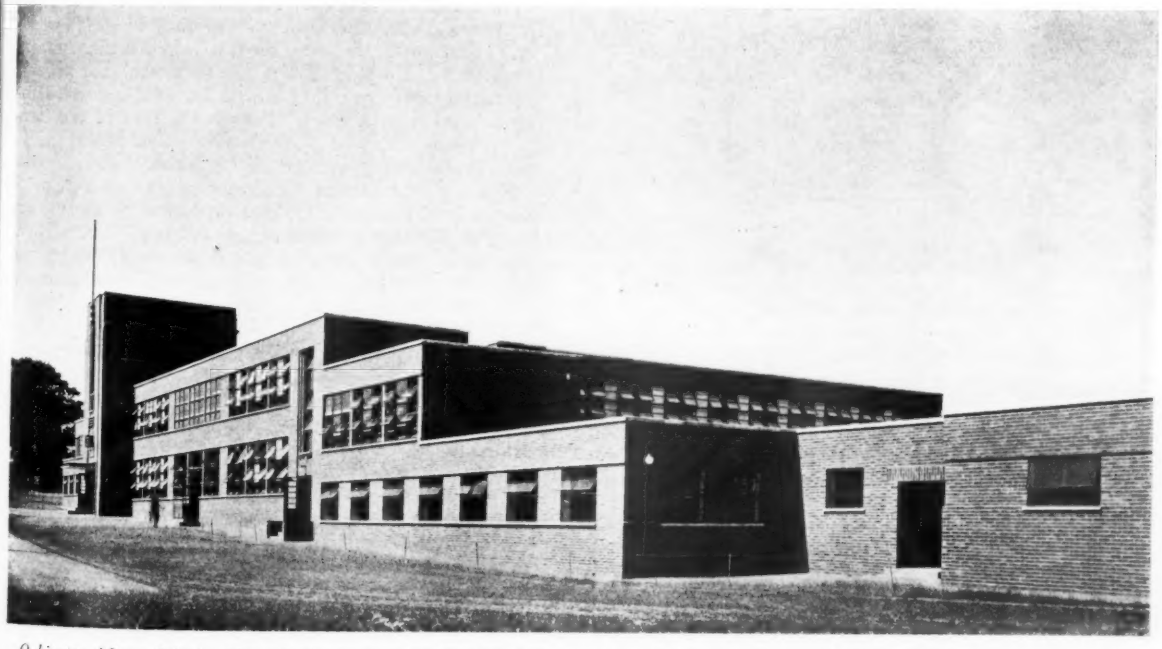
The problem which the Architect set himself was to reduce the building costs by as much as 30 per cent., if possible, without departing from standards of accommodation and without adding to maintenance costs; if possible the latter had to be reduced rather than increased. Since the County Architect is responsible for the maintenance of the buildings he erects, this last factor has considerable influence on design. A few wooden schools have been built, principally at the beginning of the financial depression, as temporary expedients to meet the needs of rapidly expanding districts. In some cases they have been removed and re-used else where. Their cost was about £10 per place.

THE NEW CONSTRUCTION

The new construction, and consequently the design, has arisen from a consideration of the costs of the elements of structure such as walls, roofs, partitions, floors and the finishes of these. Investigation is still proceeding. Of the three examples here illustrated Oakington Manor School was the first. This was given a steel framework which, together with a number of minor items, has been superseded in later examples. The Locket Road



Plans of Oakington Manor Council School



Oakington Manor School. The reduction in room height of one foot caused the windows to be extended laterally, giving a horizontal expression

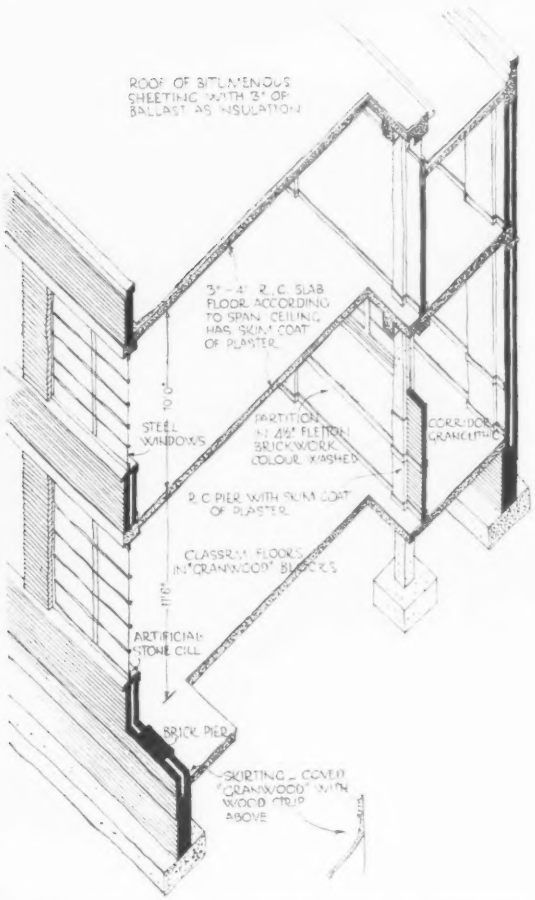

ROOF OF BITUMENOUS SHEETING WITH 3" OF BALLAST AS INSULATION
3"–4" R.C. SLAB FLOOR ACCORDING TO SPAN, CEILING HAS SKIM COAT OF PLASTER
STEEL WINDOWS
PARTITIONS 4½" FLETTON BRICKWORK COLOUR WASHED
CORRIDOR GRANOLITHIC
R.C. PIER WITH SKIM COAT OF PLASTER
CLASSROOM FLOORS IN "GRANWOOD" BLOCKS
ARTIFICIAL STONE CILL
BRICK PIER
SKIRTING – COVED "GRANWOOD" WITH WOOD STRIP ABOVE

Diagram showing the new form of construction. Flat slab, rod-reinforced, concrete floors are carried on brick piers on the outer walls, inner supports being of reinforced concrete. The panel filling is in cavity walling, the internal skin and the partitions being of Flettons finished fair-face and distempered. The lowering of the corridor roof on the first floor gives direct cross ventilation to classrooms

School at Harrow Weald, which is under construction, represents the point to which the new methods have at present been brought. Headstone Lane School is constructionally intermediate between the two others and also represents an alternative vertical architectural expression of the structure.

The Locket Road School construction consists of reinforced concrete slab floors and flat roofs carried on brick piers where the space for the latter is conveniently available; where, as with interior supports, it is desirable to conserve floor space, reinforced concrete posts are used. The external panel filling between piers consists of 11-inch cavity walling with good quality facing bricks externally and Fletton bricks internally; partitions are 4½-inch in Flettons. Steel windows have been substituted for wooden. The flat roofs are waterproofed with 3-ply bituminous sheeting on which 3 inches of gravel is placed as insulation.

DETAILS OF THE NEW CONSTRUCTION

An important factor in the cost reduction lies in the careful thought given to details of structure and particularly to finishes. Where there is not a good foundation within three feet of the surface it has been found worth while to extend the piers downwards as legs, supporting the intermediate panel walls on reinforced concrete beams just below ground level. In the diagram showing typical construction, which is based on the Locket Road School, normal foundations are shown, as on this site there is a bed of hard clay.

The 4½-inch Fletton partition, finished fair face and distempered, was chosen after a good deal of experiment because it possessed fewer disadvantages than others. It is cheap, permanent, reasonably sound-proof and heavy objects can be fixed to it; moreover, the partitions harmonise in appearance with the outer walls. While the periodic cost of redistempering has to be met, this is considered worth while as against the provision of a more enduring but more expensive surface, such as sand-lime bricks or cement glaze. Moreover, the psychological effect of a redecorated building on pupils and staff is thought to be of value.

For classroom floors several materials have been tried. In the Locket Road School "Granwood" blocks (a wood-cement mixture) are being used, in others ordinary wood block floors. Corridor floors are of granolithic in large rectangles with expansion joints. In both, a coved skirting is used with a wood fillet above, that in the classrooms being a special "Granwood" coved block, that in the corridors being formed in the granolithic.

Heating is by means of radiators and pipes from coke-fired boilers, though at Oakington Manor School electric heating has been tried as an experiment. Electric light conduit is chased in the upper surfaces of the concrete floors and exposed on the walls in the vertical runs.

THE CONCRETE FLOORS AND PIERS

The flat slab floor, 3 to 5 inches thick, is at present considered to be the most suitable, taking into account cost and convenience in fitting all plan shapes, in spite of the trouble of erecting shuttering on the site. The drainage falls of the flat roofs are made in the structural concrete instead of in an added screeding.

In the matter of surfacing the concrete ceilings and piers, the first attempts aimed at getting a smooth surface that would take distemper direct. The great care needed in the placing and tamping of the concrete in order to prevent the appearance of voids on the face, was however, found to add unduly to the cost. It was both cheaper and more satisfactory to paint the shuttering with a cement retarder to form a key and to apply a skimming coat of

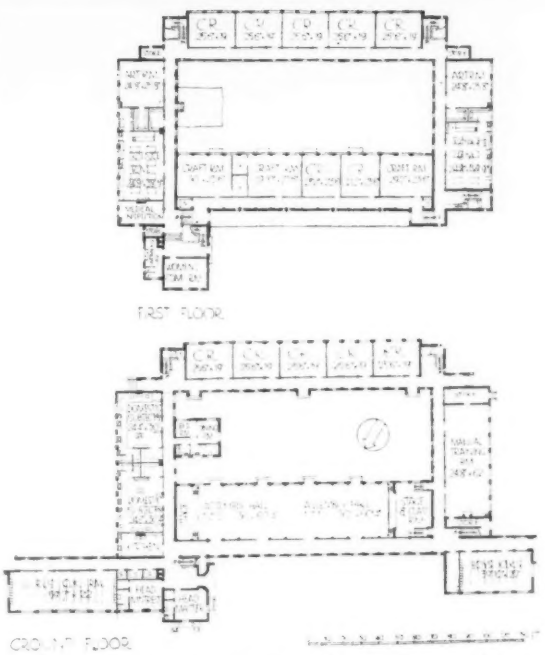
A classroom block in Locket Road School under construction. The outer brick piers and inner reinforced concrete posts are shown, the latter with sinkings to take the brick partitions. The concrete faces are treated with a cement retarder applied to the shuttering and finished with a skimming coat of plaster

plaster. The formation of the occasional inevitable void became of no importance as it could be easily stopped.

SOME RESULTS

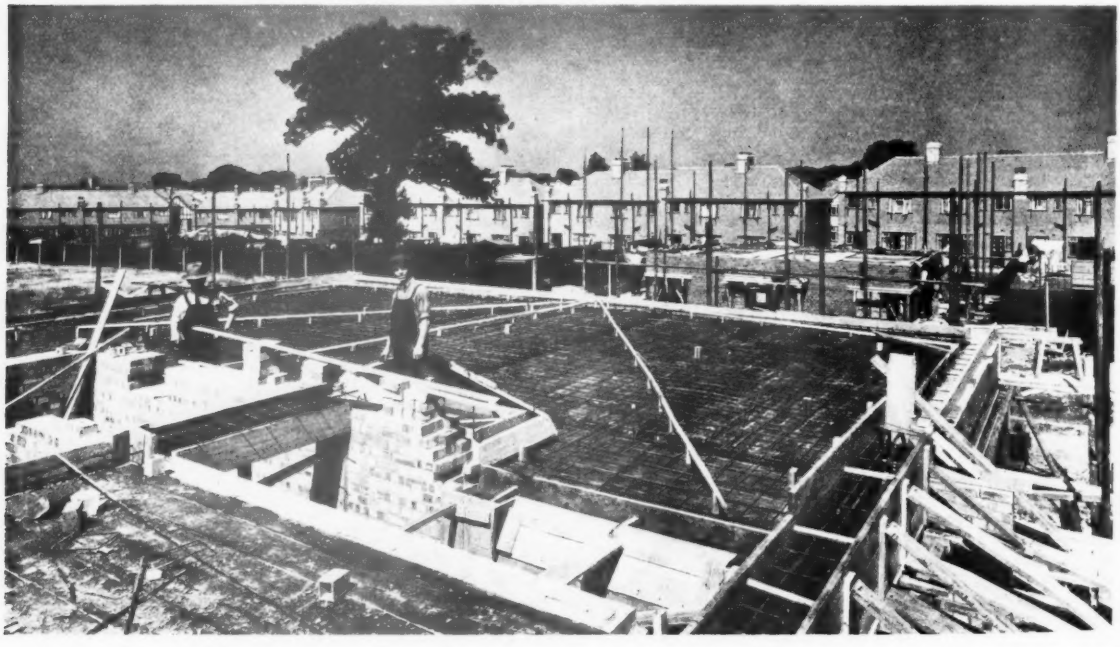
The new form of structure provides school buildings at £20 to £33 per place; it will be seen that on the average the reduction of 30 per cent. aimed at has been attained. Since, moreover, these new schools are invariably planned for extensions or as parts of a complete building, the cost per place for the first portion will be higher than for the whole building. It is worth noting that the difference in cost per place between the new and old methods represented a saving of £61,000 on the first eight schools.

The reduction of room height by one foot, in conjunction with the retention of the original glass area per room, resulted in the widening of windows. The dominantly horizontal appearance of the buildings became almost inevitable since the windows extended from pier to pier. This condition has, generally speaking, been allowed to govern design. At Oakington Manor an attempt was made to emphasise the horizontal lines of the brickwork by pointing the vertical joints in a mortar coloured to match the brick. It is found, however, that the effect of

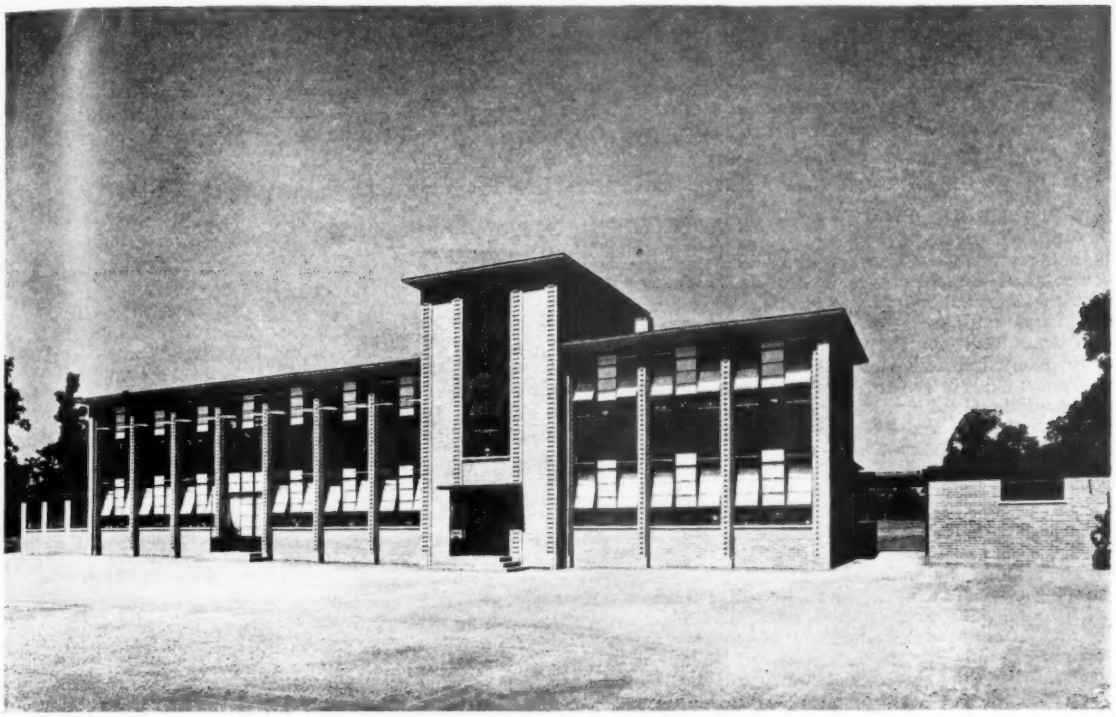


Plans of Locket Road Senior Council School, Harrow Weald

The hall in Locket Road Senior Council School (see also the plan on preceding page) showing typical reinforced concrete posts under construction



Locket Road School. A flat roof under construction, showing battens for forming drainage falls, which are made in the structural concrete instead of in a separate screeding



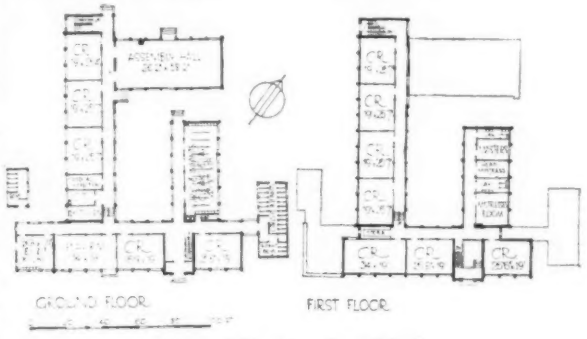
Headstone Lane School represents an alternative expression of the structure; the upper window panels are of painted steel

the pointing varied according to the weather at the time it was applied and the experiment has not been repeated.

An important result has been the plan freedom obtained both by the abandonment of the pitched roof and by the use of flat slab floors. Spans can, therefore, conform to their purpose, *i.e.*: hall, classroom and corridor, or cloakroom, without difficulty or waste. Equally important is the ease with which extensions can be made. These are not normally planned when the first portion is built; it is felt that the technique of teaching is at present so liable to change that the buildings are planned for extension in several directions and ways. Generally speaking a completed quadrangular plan is aimed at, with classrooms obtaining as much direct sunshine as possible, preferably from the south east.

The use of flat roofs has also permitted the provision of direct cross-ventilation on the upper floors over the corridor roofs, which are lowered to make this possible. On the lower floors cross-ventilation is obtained across the corridors by means of opening lights in the corridor partitions.

A feature of the later designs is the arrangement of the stage of the assembly hall as a classroom, folding doors being placed across the proscenium opening. The planning of the twin assembly halls at Locket Road School is interesting as providing either two halls each with a stage or one large hall, the smaller stage being used as a gallery. The new schools have been planned, as regards accommodation, with the Hadow organisation in mind; that is, groups of junior schools in each area contributing to a centrally placed and suitably equipped senior school. This last may be either a mixed school or, where the numbers of children are large, organised into separate departments for boys and girls.



Plans of Headstone Lane School

Review of Construction and Materials

This series is compiled from all sources contributing technical information of use to architects. These sources are principally the many research bodies, both official and industrial, individual experts and the R.I.B.A. Science Standing Committee. Every effort is made to ensure that the information given shall be as accurate and authoritative as possible. Questions are invited from readers on matters covered by this section; they should be addressed to the Technical Editor.

THE USE OF THE BRITISH STANDARD SPECIFICATION

CONTRIBUTED BY ALFRED H. BARNES [F.]

In the present day one specifies, almost as a matter of course, that Portland cement or steel shall be in accordance with the British Standard Specification. The advantages of so specifying a material by reference to a standard specification (apart from that of substituting a short clause for pages of description) are readily recognised when consideration is given to the method of procedure of the British Standards Institution in formulating a specification.

The drafting is carried out by a specially formed committee composed of representatives of all the various interests concerned. The draft is submitted for criticism to all organisations affected—professional, scientific, trade and commercial—and is then amended in the light of the comments received. This process of criticism and amendment is repeated, if necessary, until unanimity is reached.

The printing of a Standard Specification does not constitute the conclusion of the work; but from the day of its publication such specification virtually constitutes the draft of a revised edition. A notice to this effect is published in every copy, and criticisms are invited. The committee (which is always kept in being) collates the recommendations made in the light of experience in the practical administration of the specification and also of the advance of science, manufacture and constructional methods. In this way is the equilibrium of general requirements preserved and the specification kept abreast of progress.

By specifying materials to be in accordance with the respective British Standard Specifications, one is assured, therefore, that provision is made for materials which, besides being readily obtainable, are of a quality in accordance with sound up-to-date practice without undue extravagance, and which none of the parties concerned can reasonably question on the grounds of either efficiency or cost.

The reason fuller advantage has not been taken of the existence of the large number of standard specifications is probably due to the fact that heretofore those relating to building have been buried in the B.S.I. Index among a mass of other specifications foreign to building interests and providing for anything from train signals to table crockery for ships.

To meet this difficulty, the British Standards Institution has now issued a separate *Schedule of British Standard Specifications Applicable to Building Works* (CD4,000), arranged in the order of trades usually adopted in building specifications. It is not till the titles of some 200 such specifications are brought into simultaneous focus that one fully realises the possibilities of the work of the B.S.I. as an aid to the work of specification writing.

While many of these standard specifications may be utilised by a mere reference to the title and number in the appropriate place in the building specification, a number of them are so framed as to necessitate the provision of additional clauses. It would be quite inadequate, therefore, to include a general covering clause to the effect that in the cases of those materials for which British Standard Specifications have been prepared, such Standard Specifications are to be complied with. Such a clause, if adopted, must be supplemented in the proper place with any information left by the standard specification to be supplied at the user's discretion. For example, the Standard Specification for Cast Iron Pipes (B.S.S. 416—1931) provides for three grades of pipe: "Extra Heavy," "Heavy" and "Medium," leaving the user to specify which grade is to be included. If this be not definitely specified, the contractor would be in conformity with the general clause requiring compliance with British standards were he to supply the lightest ("Medium grade"), while it is conceivable in so doing he might come into conflict with the local by-laws.

Such supplementary specification must be made with regard to the *current edition* of the standard specification. For years the well-known B.S.S. 12 provided for three grades of Portland cement: "Quick-setting," "Medium" and "Slow." In the current standard specification (B.S.S. 12—1931) only two grades are defined: "Quick-setting" and "Medium-setting." To continue to specify "cement to be in accordance with British Standard Specification and of slow-setting quality," would therefore be a contradiction of terms. Even when it is ascertained that the standard specification to which reference is made is the current edition, it is still advisable to refer to the specification by number *and date, e.g.*, B.S.S. 12—1931. This practice avoids any possible confusion by the contemporaneous publication of a revised edition.

Not only is it necessary, on the one hand to provide such supplementary clauses as the standard specification demands, but, on the other hand, it is equally essential to omit all detailed description rendered unnecessary by the reference to the standard specification—not only on the grounds of redundance, but for the reason that (unless it is made clear that the addition is an intentional modification of the standard) there is considerable danger of the added clauses proving contradictory.

The trouble involved in a first perusal of the standard specification and the ordinary care in supplying clauses and omitting contradictions is more than compensated for by the effective simplification of the building specification and the "safety" afforded by reference to standard specifications. The *Schedule of Standard Specifications* just published goes far to save the user of the standards unnecessary trouble.

An even greater service would have been rendered had the new Schedule given some indication of when, and of what nature, further information was required to be supplied by the user; and if to the index number could have been added the date of the current edition, the British Standards Institution would have reduced to a minimum any trouble involved in referring to, and perusing, the various Standard Specifications.*

*A series of Notes on the Standard Specifications relating to Building is being prepared by Mr. A. H. Barnes and will shortly be published in the Journal.—Editor

HIGH TENEMENTS

The study of the construction and equipment of high tenement buildings contained in the First Report of the Council for Research on Housing Construction* is a valuable contribution to knowledge on the subject. Briefly, and generally, it is hoped to reduce existing costs for tenement buildings by as much as 30 per cent.; in the case of the three-roomed flat this infers a lowering from the Ministry of Health's average figure of £456 to about £300. It is proposed that this shall be done by mass production of building units and fittings; by full exploitation of the possibilities inherent in framed construction for efficient and rapid organisation of building works; by some amendment of out-of-date building regulations; but principally by planning in high groups of repeating units so that the fullest advantages are obtained from mass production and organised assembly. No new, untried or "stunt" building methods or materials are proposed; the materials suggested are all readily obtainable at the present time, while the structural work follows accepted practice and accords with normal building organisation.

THE CONSTRUCTION GENERALLY

The proposals envisage the use of a standardised steel frame with normal fire-resisting floors, either of pre-cast units or of hollow-tile construction. For the external facing either hollow blocks, rendered externally, or a brick-faced cavity wall are proposed, the inner skin of the wall, together with the partitions, being of partition blocks.

Two types of tenement block are considered—the five-storey block without lifts, and the ten-storey block with lifts. The advantages of the high tenement block as an economic method of developing urban sites and as providing the maximum of amenities are dealt with at some length, and interesting new data are given. An important proposal is the appointment of Housing Directors to undertake slum clearance and housing work in large areas—a wide extension of the system at present used by some of the larger municipalities.

MASS PRODUCTION

The principal reason why mass production methods, common in other industries, have not yet been applied to the building industry, is that demands have been too small and too diverse to make it worth while for manufacturers to organise plants on a scale large enough to produce articles really cheaply. In the case of slum clearance work, hundreds of local authorities act as building promoters, each erecting comparatively small blocks of dwellings, all differing slightly in construction and equipment, without any unified thought on what is a common problem. The proposed Housing Directors by arranging bulk orders would make mass production worth while. In any case, it is clear that, whatever the system of control, the cheap prices resulting from mass production can only be obtained by some form of unified action by the building promoters. It is perhaps worth pointing out that some such organisation in connection with slum clearance would help to lower prices in the industry generally, since many of the standardised fittings would be available for other building work.

It will hardly be necessary here to bring forward evidence to dispel the myth that standardisation of building units and fittings necessarily infers monotony or lack or architectural quality in the buildings. The Report, however, deals with the matter at some length in order presumably to convince the layman. It is pointed out that bricks and steel cases have long been made to standard dimensions, and that doors, skirtings, dressers, baths, sinks, w.c.s, coal and gas fires, flue and partition blocks might well be added to the list.

BUILDING ORGANISATION

A great deal of lip-service has recently been paid to the principle of cheapening building costs by organisation of contracts. Very little has been done, however, towards obtaining more unified action between building owner, architect and contractor to this end, beyond occasionally pinning up a Time and Progress Schedule in the office. The fault lies in the present system, which does not take advantage either of the builder's knowledge of where to buy or of how economies in building assembly could be affected. Under the normal contract system the contractor is actually discouraged from making suggestions for such economies, partly because it does not pay him to do so, partly because it would involve some reorganisation of the contract after it has been let (possibly also of the design of the building), and partly because of the difficulty of freeing such suggestions from ulterior motives. It would seem likely that a Housing Director would be in a position to employ as advisers experts in building organisation, and possibly to evolve working arrangements that would extract full value from the knowledge and capabilities of architect, contractor and manufacturer. In the bulk purchase or earmarking of materials the Director should be able to effect large economies. This is already done by at least one housing director of a local authority. There is no doubt that considerable economies in building operations are possible, and economies of kinds that do not lessen the quality of the structure. The importance of this, particularly in housing work, will be manifest.

The Report stresses the known fact that systematised building is more easily arranged with framed construction than with other methods. After the frame is erected and the roof and floors placed, not only are building operations less hampered by bad weather, but work can be carried out floor by floor, the operatives working in teams in a logical sequence.

Another factor is the proportions of "wet" and "dry" processes in building. The former of course include brickwork, concrete and normal plastering. Attempts to reduce the amount of wet processes are features of most schemes for rapid building.

BUILDING REGULATIONS

Any attempt at building organisation on a national or standardised basis must inevitably be stultified by a diversity in building regulations. The defects of the existing system have long been known and not infrequently stated, though often without proper appreciation of the circumstances. The summary and remarks in the Report are fair and sensible. It is pointed out that the recognised system of local building regulation is established, understood and works well up to a point. But, the Report says, "We cannot emphasise too strongly the need for *national* and *progressive* standards in building regulations, if working-class housing needs are to be economically and speedily satisfied." In so far as the suggested methods of construction contravene the building regulations of some local authorities they must be regarded as theoretical rather than immediately practicable. While they could be used in many districts, a Housing Director would be seriously hampered by having "forbidden areas" dotted about his field of operations.

UNIT PLANNING

It is, however, in the design of units of plan and construction that the chief interest, in a technical sense, of the Report lies. These are arranged to give two, three or four-roomed flats

* *Slum Clearance and Rehousing*. P. S. King and Son, Ltd. 10s. 6d. Reviewed by B. S. Townroe in R.I.B.A. JOURNAL, 7 July 1934 pp. 882-4.

with either internal stair access or balcony access on a standardised steel grid of 11 feet 9 inch square, the blocks being two squares thick. In all cases the bathroom-kitchen unit is identical so as to give a universally similar layout of equipment and supplies. The planning is very ingenious; the detail requirements of plan and equipment are in all cases accommodated within the limitations of the steel grid without forcing or unequal results. It will be seen that provided a bathroom-kitchen unit that will fit *all* cases is obtained, particularly one of which the fenestration is the same as that of living and bedrooms, flexibility of planning and elevational design is much increased. The only items not amenable to the 11 feet 9 inches grid are the staircases; these are in bays 8 feet 1 inch wide, which in most of the designs have been used to break up the long horizontal lines of the flat blocks.

EQUIPMENT

In no part of tenement construction can economies be made so easily as in the equipment of and services connected with kitchens and bathrooms. These economies will be in proportion to the degrees of standardisation and flow-assembly achieved. While the reduction in lengths of pipe to the minimum and the bulk purchase of standardised fittings are important, the greatest savings can be made in the labour involved. Installations should therefore be designed so that they can be factory assembled in units of convenient size for transportation to the job.

The Council has based its estimates on the "one-pipe" system but advocates the "one-stack" system in which a main stack is used large enough in diameter to act as both soil and vent, the various fittings discharging through deep-seal traps direct into it. This system has been used on the Continent and in America for many years. It is estimated that a "one-stack" system costs 30 per cent. less than a "one-pipe." Again, the former of these two systems is not allowed by some local authorities and the latter hardly at all, possibly because in most cases it has not been presented to them. The Council suggests that it be first installed in one or two tenement schemes for experiment.

HEATING

On the admittedly debatable point of heating and hot-water systems the report weighs up the pros and cons of each method or fuel without dogmatising. Moreover, the designs allow for solid fuel fires or ranges, gas or electric fires. It is pointed out that a great deal depends on the local prices of these fuels. On the question of low-pressure hot-water heating by radiators there is practically no experience with working-class tenements in this country. On the other hand, centralised hot-water systems have been tried, usually without success; this has been principally because tenants, hitherto unaccustomed to abundant hot water, have used it extravagantly and even wasted it. To obviate this particular difficulty a most ingenious contrivance for rationing has been devised and is illustrated in the Report. Each flat contains a calorifier at floor level heated by a primary circuit from the boiler house. The water to be heated is fed to a 30-gallon cold tank above the calorifier, the engineer in charge turning on the cold supply once a day and turning it off when the tanks are filled. The cold tank feeds to the bottom of the calorifier, the draw-off being at the top. As soon as the tenant has used up his 30 gallons the taps run dry, but the calorifier being below the level of the taps remains full. The report contains a table of capital costs per flat of centralised hot-water and heating systems.

LIFTS

A discussion of the factors affecting lift installations in tenements and an analysis of costs are given. On whether it is or is not practicable to supply working-class buildings with lifts the whole question of high tenements in this country may ultimately depend. It is therefore interesting to note that with a 120-flat block in ten storeys a lift service to all floors would cost a maximum of 1*s.* per week per flat, capital and running costs combined. Making allowances for some possible savings, a figure of 10*d.* has been assumed, of which 8*d.* represents running costs and attendants' wages and 2*d.* the interest on capital costs. Automatic lifts are considered not sufficiently fool-proof for this class of work, although their running costs would be less.

THE COST OF THE COUNCIL'S DESIGNS

The estimates for the proposed designs have been obtained from several firms of contractors experienced in housing work and carefully analysed. These estimates necessarily cannot take advantage of the cost-savings it is proposed to obtain from bulk-ordering, large-scale standardisation and scientifically organised assembly. The following prices are therefore based on small-scale operation and the present costs of materials.

	5-Storey Flats	10-Storey Flats
Price per cubic foot	10·68*d.*	12·68*d.*
Price per habitable room ..	£106	£128
Price per flat of 3-room average size	£318	£402

A further table allocates the building costs to the main components. The following is a summary showing the percentages of total cost.

	5-Storey Block	10-Storey Block
Foundations and Frame ..	17·2	13·9
Floors and Roof (including finishings)	19·7	15·8
Stairways and Balconies (including lifts in ten-storey blocks) ..	7·3	10·2
Walls, Partitions and Flues (including all finishing and decorations)	23·3	19·0
Windows, Doors, etc. (painted) ..	13·2	12·2
Sanitary Equipment (including drains and refuse disposal) ..	9·3	8·5
Heating, Hot-Water and Cooking Equipment (including a central system in ten-storey blocks only)	7·9	14·2
Lighting Equipment	2·1	1·5
Unallocated assembly costs ..	Nil	4·7

It is worth noting that the ten-storey block is found to cost £22 more per habitable room than the five-storey, but this point in all cases must have reference to site costs and densities.

What reductions of these figures could be obtained by standardisation and the other cost-saving principles proposed it is impossible to say with any accuracy. A saving up to 10 per cent. is, however, claimed as fairly easily obtainable.

CONCLUSION

It is easy to decry the work contained in this Report on the grounds that much of it is incapable of immediate application because of restrictive building regulations or that the Report lays undue stress on certain materials. But no one has hitherto attempted to pool the ideas and knowledge of experts in order to find out what is or is not technically practicable. The Council have wisely taken a very broad view of their problem, but have aimed at obtaining exact information, which is the true function of research work. That their report looks slightly propagandist and their recommendations Utopian should not blind the reader to the fact that the propaganda and recommendations are based on knowledge as exact as it is possible to obtain. This work is precisely the kind of general research which is badly needed for all classes of building, particularly those that have a nation-wide use. Finally, they have taken the view that building regulations are made for man and not man for the regulations—a view that in time and with patience the local authorities of this country may be driven to adopt.

Book Reviews

PROFESSOR GOODHART-RENDEL'S SLADE LECTURES*

BY W. VERNON CROMPTON, F.R.I.B.A.

IN the year 1868 Mr. Felix Slade left £35,000 to endow art professorships at Oxford, Cambridge and London Universities; not less than twelve lectures to be given annually on the history, theory and practice of the Fine Arts.

Whether these lectures have had any substantial influence would be an interesting enquiry; speaking with a confidence only possible to one having entire ignorance of the point, we should imagine the influence has been very slight indeed.

Judging from his attitude in after life, the average undergraduate, unlike his predecessor in the eighteenth century, seems to be turned out almost devoid of intelligence as to the place and importance of the Fine Arts in a civilised society; every architect who is in close and personal touch with his clients must have noticed this over and over again.

It is, perhaps, therefore not improper to suggest that enquiry should be made into the reason of this deplorable ignorance.

After this short, but, it is to be hoped, not impertinent preface, it is an interest and pleasure to turn to these lectures.

Mr. Goodhart-Rendel has gallantly taken upon himself the task of trying to bring the arts into one philosophical scheme, a task which has allured many to attempt from time to time, but which it is probable will never be achieved successfully, because the universe we live in does not appear to be sufficiently logical to be brought to toe the line at all points: neither is life so mechanical that one can be sure that it will not develop unexpectedly and apparently against rule; also it is impossible even to outline such a piece of work within the limits of four short lectures, however excellent they may be.

In order to understand Mr. Goodhart-Rendel's point of view, it is worth while spending time upon the first lecture on "The Materials of Art" where is displayed the foundation upon which his edifice is planned.

After making the very necessary distinction between the Useful and the Fine Arts, he proceeds to examine the mental process common to any creative act in Music, Architecture, Sculpture, Painting, Literature and the Drama—the six arts of major importance, commencing with the proposition: "For the production of any Art there are two necessaries: the material with which the artist creates, and the vehicle by which his creation is conveyed to the perception of others . . . any element of a work of Art that the artist cannot work without must be his matter, his material. His vehicle will be any element that he needs only to externalise his work, to disclose it to the world."

It is apparent at once that the words "vehicle" and "material" are used in a special sense.

The artist's "vehicles" are, apparently, sounds for Music and Literature, masses for Architecture and Sculpture, shapes and colours for Painting, and movement for the Drama. The immediate and primary "materials" with which the artist creates are the ideas or concepts that are normally derived from direct experience of the vehicle appropriate to its special art, or, as he himself says in his last lecture, "the artist's mental conception of a shape or colour afterwards to be made visible, of a sound afterwards to be made audible."

The obscurity of these statements, especially as to the meaning of "the ideas of the vehicle," may possibly be lightened, if not cleared up, by considering how they apply to the Art of Architecture; it can be agreed that the Fine Art of Architecture is based to a great extent upon the relation of mass to mass; as masses are the vehicle by which this Art finds externalisation, or expression, the activity of mind which consists in combining the ideas of this vehicle constitute the Fine Art of Architecture, an art which, "stopping short of performance, can be completed upon the drawing board."

The argument is somewhat difficult to follow, not only because of a certain vagueness of statement probably due to urgent necessity for condensation but also because of certain apparent inconsequences now to be considered.

Firstly, Mr. Goodhart-Rendel's "vehicles" seem to be somewhat in the air; he speaks of "masses" as the vehicles of Architecture and Sculpture, but surely "masses" cannot exist in the void aloof and unattached; they must have some quality which immediately relates them to something physical.

They cannot remain indifferent or unaffected, either when serving as a means or medium, whether it is the design for a mud hut, or a house of cards, that is disclosed to the world.

Further, but possibly to a lesser degree, "flat shapes and colours," the vehicles which are earmarked exclusively for painting, seem to be, at times, also the vehicles for the Art of Architecture or even of Sculpture.

Secondly, the way in which the word "materials" is used in the title to the first lecture, and in many other places, is probably not above criticism; to say that "the necessary materials of all Fine Arts are combinations

*"Fine Art. By H. S. Goodhart-Rendel. Oxford and Clarendon Press. 1934. 3s. 6d.

of their particular vehicles—in Music, combinations of the ideas of sounds; in Architecture, combinations of the ideas of masses; and in the other arts, combinations of whatever that vehicle may be"—is to use a word—namely, materials—relating to the physical as opposed to the intellectual and spiritual for the purpose of defining ideas which are in themselves images of the mind. It is probably most difficult to find the entirely right word, but "essentials" might be better and not so likely to cause the reader's train of thought to be side-tracked, involving later on the inevitable mental correction.

It is true that in the second lecture we are told that the word "material" is used for the logicians' and not the physicists' matter, but even then, outside Oxford, it is an explanation which requires a little further elucidation for the unsophisticated reader anxious to learn about Fine Art.

Thirdly, it has already been hinted that Mr. Goodhart-Rendel seems to be making a gallant attempt to bring ideas about Fine Art into one scheme of things, to find a lowest common denominator as it were, an ambition which is the result, doubtless, of an orderly disposition of mind; but æsthetics is a queasy thing by no means amenable on all occasions, and the straight jacket, if employed to bring order to recalcitrant ideas, often reduces them merely to apparent but sulky complacency. For instance, we read of "the work of Architectural Art which can be completed upon its author's drawing board," and the work of musical art which can be created and written out in notation without normally ever a sound being made; the work on the drawing board or the musical score, as the case may be, being merely "a putting down as an aid to memory."

These statements are not being criticised as to whether they are sound or not, neither is it suggested here that to stop short of performance is to stultify the previous effort, but seeing that we are dealing with "a standpoint from which the Fine Arts can be reasonably if not completely viewed," it is pertinent to ask what is the mental process in the Fine Art of Sculpture analagous to that already described for Architecture and Music.

The sculptor, like the architect and the musician, has "material" with which he creates, namely, "ideas of masses," but for the sculptor there seems to be no half-way house between his mental concept and its presentation to the outside world, between his design and its performance, such as it is suggested the architect finds upon his drawing board or the musician in his score; or to put the point in another way, at what stage is a work of sculptural art completed if it does not pass onwards to performance? If Architectural Art "is normally a preparation for architecture," in what sense is Sculptural Art a preparation for sculpture?

Of course it may be possible with sufficient ingenuity to establish parallelisms between the mental processes in all the Arts, but it is questionable whether it can be done through and through.

Mr. Goodhart-Rendel's line of thought is clever and unique, for which we are thankful; it is certainly sound enough to justify the hope that it can form a foundation for future theory and criticism when extended and clarified, as it doubtless will be in future lectures.

The second lecture upon "The Making of Art" turns around the statement, not to be regarded as a definition but rather as an expression of faith, that "A work of Fine Art is a fusion of combinations of ideas chosen and arranged by the artist to touch in a special way the thoughts and emotions of others."

Throughout these lectures it is made clear that the significance of the "ideas chosen" must be an æsthetic significance, a point which cannot be emphasised sufficiently when we remember that our immediate forefathers destroyed the integrity of æsthetics by mixing it with ideas often associated with, but not implicit therein, such as romanticism, classicism and ethicism, and that some of the present generation tend to muddle their æsthetics quite satisfactorily with functionalism, technical processes and what not.

Moreover, the failure to realise the autonomous nature of æsthetics is, perhaps, one of the reasons why the influence of Oxford in matters of art has been so negligible, or even wrong-headed, during the past century. In order to establish his doctrine Mr. Goodhart-Rendel does something unfortunately not often attempted with an expression of faith: he proceeds to analyse it, and in the remainder of the chapter the method of choice, the method of arrangement, and the phenomenon of fusion of the "ideas chosen" receive scholarly examination.

Judging from the greater facility in the writing of the last lecture on "The Criticism of Art," Mr. Goodhart-Rendel seems to have enjoyed himself when speaking about instructive, indicative and synthetical criticism and the four tests appropriate to a work of art, all of which is well worth careful reading.

Two very definite statements are made, however, which we fear might cause misapprehension; one is as follows: "I hold that the method of testing the quality of art is exclusively intellectual." Of course, from the very nature of things, an intellectual process is necessary for the completion of any critical statement, but that is not all.

I have not the reference at hand, but think that it is Bertrand Russell who says that any human activity which is not the result of the whole man is likely to be untrue; and Professor Whitehead, in *Adventures of Ideas*, says, "The living organ of experience is the living body as a whole."

It seems, therefore, that criticism of art, to be valid, must be that of the whole man.

The other statement is: "No truth seems to me to be more self-evident than that it takes two to make artistic worth—the giver and the receiver." On reading elsewhere, we find the baldness of this very definite statement somewhat modified; perhaps, however, it may not be altogether beside the point to give an illustration and ask a conundrum.

We live in an age when Mozart is appreciated less and less; if we continue to develop in our present uncivilised way it is not inconceivable that in the near future there may be no one to "receive" his music and no Busoni to give it interpretation. What, then, will be the worth of Mozart?—a conundrum to which Mr. Goodhart-Rendel has, of course, a complete and satisfactory answer.

So much space has already been taken that little is left for the consideration of many other points of interest; there is one matter, however, which must not be overlooked.

Engineering is often referred to as the Useful Art complementary to the Fine Art of Architecture; for example, we read that "much that is considered to-day to be architecture is in reality the useful Art properly called Engineering"; should we not rather say the useful Art complementary to the Fine Art of Architecture is Building, improperly called Engineering?

Let us take as an example to elucidate this point, the recent heightening of the Assouan Dam: this work, carried out under the direction of a well-known firm of consulting engineers, consists of a series of reinforced concrete buttresses faced with local stone to strengthen the existing structure, the whole being raised by a wall of local rubble stone faced with ashlar. This is building work pure and simple; to call such work engineering is a comparatively recent and questionable practice.

It cannot be too clearly understood that the engineer as we now know him is a specialist, be he municipal, constructional, heating, lighting, sanitary or what not; in most, if not in all, cases an appendage to the ancient art of building; all of them invaluable specialists made necessary by the exacting and complicated demands of the time.

It may be agreed that the Art of the Architect "must commonly be reared upon a substructure of engineering necessity and the obligations of use, and will usually, in the idealisation of that necessity, of those obligations, find its theme ready made," but it is a statement true only if the word building is used instead of the word engineering, or if this latter word is omitted altogether; otherwise we must maintain that the Gothic masons of the fourteenth century were engineers rather than builders, in which case the discussion loses clarity owing to haziness in the use of terms.

All architects should have some elementary knowledge of æsthetics so as to be able to give reason for their faith: to them we commend these Slade lectures and we ourselves look forward to their continuation with interest and pleasure.

THEORY AND PRACTICE*

Some weeks ago Professor Walter Gropius, in a Paper which he read to the Design and Industries Association and which was published in this JOURNAL, said that adherents of modern style must beware of "artistic aspirations" and superficial slickness in technique. His audience, which was composed of most of the doctrinaires and practitioners of modernism in London, was so exultant in its applause of the first phrase about artistic aspirations that it had no chance of hearing the second—"superficial slickness in technique"; nor is it probable that the same applause would have greeted the remark if it had been heard—it is a bit too pertinent to strike response. The genuine modern architect does not need to consider the danger of conscious æstheticism and so he can laugh at it; he is modern not by adoption but by grace; his æsthetic make-up is inherent and sub-conscious, but does not prevent frequent displays of superficial technical slickness.

Everyone reacts more spontaneously to remarks on the appearance of things than to remarks on technical qualities; so, whatever may have been the intention of Mr. Yorke, the author of *The Modern House*, in including a number of neat technical drawings in his book, we dare surmise that they will not have one quarter the attention paid to them that will be paid to the purely æsthetic qualities of the many delightful buildings he illustrates; which is perhaps a good thing because, apart from the plans in which æsthetic sociological considerations predominate and which are essential to a proper understanding of the views, the incidental interpolation of floor sections, window contrivances and the like, although it gives an appearance of "getting down to brass tacks," in fact contributes nothing to the argument and is, if anything, misleading and a definite encouragment to a superficial idea of the intricacy and importance of technique. But slickness in books, as in buildings, is a propagandist affair, and we cannot properly blame this delightful work for being of its kind—particularly since it is probably the best book of its kind that has yet appeared. It is all about what Mr. Yorke chooses to call *new functional plan*, which we can note in passing is not so new as he would have us think, unless anything before mid-Victorian days is so old as not to be within the range of a modernist's history, nor quite so striking as his italics, nor so universal as his capricious abandonment of the article would seem to imply.

In his introduction the author apologises for having written the book, because he thinks the small house to be not "a good or even a possible solution to the problem of housing the people"; a dispiriting thought with which to embark on a book 200 pages long on the subject he despises, which may account for the rather tired sermonistical unction of his delivery that makes the reader mourn the fire of Corbusier or Ruskin or the incisiveness of Lethaby. And perhaps he is, in his heart, a bit tired, as are many others, of all the fine old standard arguments which are only kept lively by the amusingly inconsequential way in which each new author stirs the hash and then flings it on the page for people who are presumably so keen to get on to the pictures that they don't really mind what all the talk is about.

Small houses, Mr. Yorke agrees, will continue to be needed, but only until we are all wise enough to want to live in tenements. We know that many people, perhaps Mr. Yorke among them, prefer to live thus—to get their flowers if they are to have them at all from the shop, since private gardens and "the drudgery" of private gardening is taboo in Mr. Yorke's paradise; to reject consciously the joys of a family, for who would choose to bring up children in a tenement if they could do otherwise and to conduct their intellectual recreations or a bit of polite gymnastic on the roof?

The objections to small houses are effectively if not convincingly stated in the introduction, and the way is left clear for one of the best expositions of the ideals and practice of small house design in Europe and America that has yet been made. Unfortunately, Mr. Yorke is exasperatingly tolerant of the shortcomings of anyone on his side, and the book would have gained enormously if he had been courageous enough or, perhaps, sufficiently sure of his arguments to discuss the buildings he illustrates. They are not all good, though the reader without some knowledge of the legitimate possibilities of modernism might with reason think that they have all been chosen because the author of the book thinks that they are (a terrible thought, which we hope for the author's sake is unjustified). Possibly, if the comparative merits of any of the buildings were called in question it would

*_The Modern House_. By F. R. S. Yorke. London. The Architectural Press. 1934. 21s.

be said that comparative merit does not enter in at all; inasmuch as they are all functional they are all meritorious; in truth neither Mr. Yorke nor the architects know if these buildings are "functional"; it is merely known that they are built more or less to satisfy the expressed needs of individual clients and the aspirations of individual architects. He does not know if the buildings are structurally sound; it is probable that many are not because they have the quite natural faults of experimental structures. He does not know if they are all economic nor, we dare surmise, does he know what an economic structure is. Do economic demands allow the use of slabs and concrete when brick is the cheaper simply because "brick is not æsthetically a good material for the filling wall"? Is it an infringement of economic considerations to spend money on facing a wall with a material that will not craze even when the crazing only looks untidy and is not a structural fault?

And in how many of the best of these buildings have maintenance costs been considered? All this, in one way or another, is fundamental to a proper consideration of modern architecture, alias *new functional plan*. It is quite obvious, to the reviewer at least, that nine out of ten of the houses illustrated have been chosen solely on account of their æsthetic qualities, and that, probably, in every case they have been built in the way they have for æsthetic reasons—and, we hasten to add without any shame, æsthetic reasons, despite Mr. Yorke's vitriol in the introduction, can be very good reasons too, as long as they are not the expression of "artistic aspirations" and are not "slick." In dozens of the illustrations we can see palpable signs of slickness in "art design" and surmise, though we cannot see as frequent slickness in technique.

We are told that "there is no æsthetic prescription, no æsthetic law for the form of an industrial product" (in which are to be included houses). "There is only one law for it; that it shall be entirely appropriate to its purpose"—*sancta simplicitas!*

Modern architecture is already cluttered up with all the elaborate theorising which is turned out simply because books of pictures must have texts, but we may as well carry the talk a stage further by daring to say that most of the discourse about function and materials is useless and much of it harmful. The formative influences that create the styles characteristic of any age are independent or, if not fully independent, superior to either.

The functions of all the individualist houses shown in *The Modern House* vary as much as the ages and characters and occupations of their owners; there is no absolute common denominator in *function* sufficient to explain the obvious resemblance between almost all the houses in the book, a resemblance which is sufficiently pronounced to make their classification as members of one style rational.

Nor is their common style derived directly from their materials—some are brick, some wood, some concrete, and many a mixture of all three with patent materials added. We know that the genuine modern architect, given the job of designing a house, whatever his materials or whatever his functional problem, will turn out a building which is inherently modern. The architect, unless he lives in a phantasy of revivalism, cannot help designing in tune with his own age. He needs no literary stimulus to use flat roofs or concrete or all-glass walls, or this, that and the other, he certainly needs no stimulus to make his walls express the nature of envelopping skins, nor any of the bright expressionistic ideas which have succeeded in taking "modernism" for a ride. He will, it is true, be "functional," but in its simple straightforward meaning that has guided *good* architecture almost always, and this will include, as it does in many of the examples in the book, a proper consideration of purely visual and spiritual requirements. If he uses brick he will not need to cover it with stucco to make it look like concrete, he won't mind even showing and exploiting the possibilities of the bond, he will not be particularly proud to show off the more fantastic possibilities of his construction, because the inferiority exhibitionism that prompts such displays will not exist for him. He will look around for good local materials and will use them if they are suitable and if they are not will find others, but whatever he uses will be used clearly and simply and coherently.

The modern theorists are no worse in their attitude to materials and architectural form than the "traditionalists," who are continually emphasising, and quite wrongly, the need to make building in some particular district conform in material and form to the buildings of previous ages. It does not matter one tiny bit if a building conforms as long as it is "functional" in the wider meaning we have tried to express. Some of the best "modern" building has been done in places where the only available materials have been local and traditional, but where a good architect has imbued his work with the natural and inherent qualities of his own time. Some of the new *skihütte*, for instance, in the Alps are built only of rock from the site and pine drawn from a thousand feet below; essentially their whole problem is traditional and simple, but essentially the resultant buildings could never be mistaken for other than modern. The "will to form" of 1934 has dominated function and material.

There is absolutely no reason but prejudice why on an English country site the modern architect should not design with stock bricks, timber weatherboarding, reinforced concrete, naked steel columns and any material necessary to solve a special problem.

The prejudice is on all sides—there are those who *must* use concrete against the dictates of common sense and economy and those who will only use good old oak, there is the local dislike of anything which does not conform superficially to what is supposed to be local tradition and those whose chief desire is to *épater les bourgeois*. If only there could grow anew a sense of balance building would gain in vitality and lose nothing of its modernity, because the vigour of the "will to form" which directs the course of modern design is only incidentally related to function and structure; it is very closely related to national and mass psychology. The architect of any age visualises his creations clothed in a particular form before ever function has been analysed or structure calculated. The idea of the form may be vague until these analyses and calculations are made, but nevertheless the idea exists superior to all else and, when calculation starts, will be the "formative" influence governing design.

This review would never have been so long if *The Modern House* had not proved to be such a delightful and provocative book which must obviously find a place on every architect's bookshelf, so that he can train and entertain himself by puzzling out how half the buildings in the book came to be there except on their purely æsthetic merits.

E. J. C.

Accessions to the Library

1933-1934—XI

INCORPORATING NOTES ON RECENT PURCHASES

These Notes are published without prejudice to a further and more detailed criticism.)

Lists of all books, pamphlets, drawings and photographs presented to or purchased by, the Library are published periodically. It is suggested that members who wish to be in close touch with the development of the Library should make a point of retaining these lists for reference.

Books presented by Publisher or Author marked R.
Books purchased marked P.
** Books of which one copy at least is in the Loan Library.*

ARCHITECTURE

History

TALLIS (JOHN). *Publisher*
Tallis's London street views, *etc.*
Nos.
73. Parliament Street.
76. Trafalgar Square.
77. Cockspur Street.
79. King Street and New Street.
80. Bridge Street, Westminster, and Lambeth.
81. Lowther Arcade and King William Street, Strand.
84. Cockspur Street and Charing Cross.
Presented by Mr. Norman Jewson. [*L.*]

HAUTECŒUR (LOUIS)
La Bourgogne l'architecture. (Les Richesses d'art de la France *artis.*) 3 vols. fo. 15″. Paris: G. van Oest. 1929. £4 4s. P.

DURM (JOSEF). *Editor*
Die romanische und die gotische baukunst Heft 4. Einzelheiten des kirchenbaues. By M. Hasak.
2nd Edn. 4o. Leipzig. 1927. 10s. P.

Drawing

GIBBS (JAMES)
*Rules for drawing the several parts of architecture, *etc.*
3rd Edn. London. 1753. *Presented by Mr. Norman Jewson.* [*L.*]
Mr. Jewson has given this duplicate copy of Gibbs's Rules so that we may have one of the early editions in the loan library.

Professional Practice

SLOUGH URBAN DISTRICT COUNCIL
Byelaw. 1933. pam. 9½″. Slough. 193[illegible] R.

PALMER (H. S.)
The Law of Leases.
8½″. xii+143 pp. London: Estates Gazette Ltd. 1934. 7s. 6d. P.

Building Types

(Civil)

HOME OFFICE]
Factory and workshop welfare—the tanning welfare order 1930 . . . for securing the welfare . . . employed in liming and tanning of raw hides . . . (Statutory rules and orders, 1930, No. 312).
pam. 9½″. London: H.M.S.O. 1930. 1d. P.

LONDON COUNTY COUNCIL
Queen Mary's hospital for children, Carshalton, Surrey (Inspection and children's fête, June 1930). pam. 8½″. London. 1930. R.

RICHARDSON (A. E.)
*The Old inns of England.
8½″. x+118 pp. London: Batsford. 1934. 7s. 6d. R. & P.

FINETTI (GIUSEPPE DE)
Stadi.
4o. 10¾″. 179 pp. *and* bibliography. Milan: Hoepli. 1934. £1 9s. P.

SLEGER (KARL VON)
Das Denkmal des Weltkriegs.
4o. 12¼″. 271 pp. Stuttgart: H. Matthaes (1930). 21s. P.

FERMAUD (LAURENCE)
Sound film studio. (R.I.B.A. thesis for final examination.)
4o. 13″. typescript. 1933. *Presented by the author.*

(Ecclesiastical)

ROBERT (PAUL), *Publisher*
Cathédrals de France.
4o. 14″. 6 pp. *and* 100 plates. Paris: Robert [1897]. *Presented by Sir Henry Gooch.*

[MILAN]
Recorda del duomo di Milano.
pam. 4o. 13¼″. 23 photographs and engravings. Milan. 1894. R.

(Educational)

HUMBERSTONE (T. L.) *Editor*
New buildings for the University of London.
9″. 43 pp. London: W. Rice. 1933. 2s. 6d. P.

(Domestic)

MINISTRY OF HEALTH
Housing, England—the Housing (Rate of Interest) amendment order, 1934, date June 8 1934 . . . (Statutory rules and orders, 1934, No. 558). leaflet 9½″. London: H.M.S.O. 1934. 1d. P.

MINISTRY OF HEALTH
[Housing.] Housing Act, 1930: Part I. Circular 1407.
pam. 9½″. London: H.M.S.O. May 1934. R.

MINISTRY OF HEALTH
Housing, England—(Rate of interest) amendment order, 1934 . . . (Statutory rules and orders, 1934, No. 557).
leaflet 9½″. London: H.M.S.O. 1934. 1d. P.

MINISTRY OF HEALTH
Housing Acts, Housing (rural workers) Acts, and small dwellings acquisition Acts—interest on loans, etc. Circular 1412.
leaflet 9½″. London: H.M.S.O. June 1934. 1d. P.

FROMMES (HENRY)
Die Wohnungswirtschaft im Grossherzogtum Luxemburg.
pam. 8¼″. [Frankfort.] [1931.] R.

YORKE (F. R. S.)
*The Modern house.
10″. 200 pp. London: Architectural Press. 1934. 21s. R. & P.

Details

BAJOT (M.)
Intérieurs d'appartements meublés . . . dans les styles du XV[e] au XVII[e] siècles.
la fo. 25″. 25 plates. Paris: Claesen [1885]. 16s. P.

ALLIED ARTS

GOODHART-RENDEL (H. S.)
*Fine art.
7½″. vii+15 pp. Oxford: Clarendon Press. 1934. 3s. 6d. R. & P.

GLOAG (JOHN)
* Design in modern life, by Robert Atkinson, Elizabeth Denby, E. Maxwell Fry, *etc.*
4o. 10¼″. 169 pp. London: Allen and Unwin. 1934. 10s. 6d. R. & P.

ROYAL ACADEMY OF ARTS
The Exhibition of the R.A.A. 1934. (The one hundred and sixty-sixth.)
12mo. 5½″. 143 pp. London. 1934. 1s. R.

GLOAG (JOHN)
English furniture (the Library of English Art).
8½″. xv+200 pp. London: Black. 1934. 7s. 6d. R

ARCHÆOLOGY

FRANCE: HAUT-COMMISSARIAT EN SYRIE ET AU LIBAU : SERVICE DES ANTIQUITÉS ET DES BEAUX-ARTS
La trace de Rome dans le désert de Syrie. Le limes de Trajau à la conquête Arabe. Recherches aériennes (1925-1932). By A. Poidebard. (Bibliothèque Archéologique et Historique. tome xviii.)
2 vols. (text and p. fo. plates). 4o. 11¼″. Paris: P. Geuthner: 1934. £5. P.

BUILDING

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: BUILDING RESEARCH STATION LIBRARY

A Classified list of the text-books and works of reference in the library of the Building Research Station.

4o. 13″. Garston. Typescript. 1932. R.

MATHEMATICS

DRURY (F. E.) *and* HASLAM (W. T.)

*Mathematics for students of building, Book II.

7″. viii+249 pp. London: Arnold. 1933. 5s. P.

Books I and II are now in the loan library.

SPECIFICATIONS

BRITISH STANDARDS INSTITUTION

Schedule of British Standard specifications applicable to building works, July 1934. pam. 8½″. London. 1934. 6d. R.

MATERIALS

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: FOREST PRODUCTS RESEARCH

Empire timbers for structural design. British Columbia Douglas fir . . . By C. J. Chaplin.

pam. 9¾″. London: H.M.S.O. 1932. 6d. R.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: BUILDING RESEARCH

* Bulletin No. 11. The effect of building materials on paint films, by H. M. Llewellyn.

Revised Edn. Pam. 9½″. London: H.M.S.O. 1934. 3d. R. (2).

CONSTRUCTION

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: STEEL STRUCTURES COMMITTEE

* Second report of the . . . committee.

9½″. London: H.M.S.O. 1934. 7s. 6d. R. 2.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: BUILDING RESEARCH

Technical paper No. 15, temperature rise in hydrating concrete. By N. Davey and E. N. Fox.

9½″. London: H.M.S.O. 1933. 1s. 3d. R.

SANITARY SCIENCE AND EQUIPMENT

ELECTRICAL ASSOCIATION FOR WOMEN

The Electrical handbook for women. Edited by C. Haslett.

7″. 416 pp. London: Hodder and Stoughton. 1934. 5s. R.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH: WATER POLLUTION RESEARCH

Technical paper No. 4. The Act of water on lead, with special reference to the supply of drinking water . . ., by H. Ingelson.

9½″. vi+115 pp. London: H.M.S.O. 1934. 2s. R.

ELECTRIC LIGHT MANUFACTURERS ASSOCIATION: FOURTH CONFERENCE

Fourth architects' conference on lighting.

4o. 13″. London. Typescript. 1934. R.

WATSON (A. R.)

Hot water supply in the home . . . the ejeculator system.

7½″. 63 pp. London: Spon. [1934.] 2s. 6d. R.

ALLIED SCIENCE

THE NATIONAL PHYSICAL LABORATORY. REPORT FOR THE YEAR 1933.

The Departmental reports include:

Building: Research board.
Physics: Acoustical research.
Noise in buildings.
Electricity: Insulating materials.
Engineering: Wind pressure.
Fatigue research.

LEARNED SOCIETIES

BRITISH SOCIETY OF MASTER GLASS PAINTERS

JOURNAL. Vol. V. No. 3

(*Including:*

Rev. Christopher Woodforde. Essex Glass Painters in the Middle Ages.

L. B. Saint. Stained Glass in the Middle Ages

John A. Knowles. A History of the York School of Glass-painting (continuation) xii. Political allusions in York work.)

INSTITUTION OF CIVIL ENGINEERS

Minutes of proceedings. Vol. 236, part II. 1932–33.

(*Including:*

H. A. Lewis-Dale. The construction of aerodromes.

H. C. E. Cherry. The influence of earthquakes on structural design.

J. J. Booth. The design of an earthquake-resisting structure: The Dominion Museum, Wellington, N.Z.)

JOURNAL OF THE SOCIETY OF ANTIQUARIES. VOL. XIV. No. 3. JULY, 1934

(*Including:* Sir Charles Peers. Anniversary presidential address—In which he describes Cyprus buildings which he has examined with a view to their preservation).

JOURNAL OF HELLENIC STUDIES. VOL. LIV. PT. I. 1934

Journal of the Society for the Promotion of Hellenic Studies.

PERIODICALS

BATHS AND BATH ENGINEERING. *Monthly*

The Journal of the National Association of Bath Superintendents. 30 and 31 Furnival Street, Holborn E.C.4. (1s. per no. or 10s. p.a.)

L'ENTREPRISE FRANÇAISE. *Monthly*

Journal of the Fédération Nationale du Bâtiment et de Travaux. 9 Avenue Victoria. Paris IVe. (6 fr. per no. and 60 fr. p.a.

These two journals are now received by the library.

TOPOGRAPHY

BATSFORD (HARRY) and FRY (CHARLES)

The Face of Scotland.

8½″. x+112 pp. London: Batsford. 1933. 7s. 6d. R.

WINBOLT (S. E.)

*Kent. (Bell's pocket guides. English counties.)

6½″. xxxvi+324 pp. London: Bell. 1930. 3s. 6d. P.

WINBOLT (S. E.)

Somerset (Bell's pocket guides. English counties.)

6½″. xxxix+248 pp. London: Bell. 1929. 3s. 6d. P.

TOWN AND COUNTRY PLANNING

BIRMINGHAM AND MIDLAND INSTITUTE

The City and the state. By the Rt. Hon. the Earl of Crawford and Balcarres (President 1928). pam. Birmingham. 1928. R.

OXFORD PRESERVATION TRUST

Ribbon development. [*Reprint from The Times*, 29 April 1934.]

pam. 7½″. Oxford. 1934. *Presented by the Trust.*

SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS *and* THE LONDON SOCIETY

A Summary of the reasons for retaining the present Waterloo bridge by strengthening. May 1933.

pam. 4o. 13″. London. (1934.) R.

COUNCIL FOR RESEARCH ON HOUSING CONSTRUCTION

* Slum clearance and rehousing.

4o. 11¼″. 139 pp. London: King. 1934. 10s. 6d.

Presented by the Council (4 copies).

PRESERVATION OF AMENITIES

SCAPA SOCIETY

Advertising and the amenities. Address by the Rt. Hon. Sir Leslie Scott. pam. 9¾″. London. [1934.] R.

DRAWINGS

LONDON TOPOGRAPHICAL SOCIETY (*Publication for* 1932)

Plan of the manor of Walworth and parish of Newington, Surrey.

Reproduction (1681) 1932.

By subscription.

MANUSCRIPTS

SHAW (NORMAN) *and others*

Letters from—R. N. Shaw, Joseph James, O. Hansard, J. M. Lockyer, C. Fowler, F. P. Cockerell, W. E. Nesfield, J. Norton and A. Blomfield *to* Charles Foster Hayward relative to the foundation of the Foreign Architectural Book Society in 1859.

15 ms. letters. 1859–60.

Presented by Mr. A. B. Hayward [L.]

Review of Periodicals

Within the self-imposed limit of these pages attempt is made in this review to refer to the more important articles in all the Journals received by the library. None of the journals mentioned are in the loan library, but the librarian will be pleased to give information about prices and where each journal can be obtained. Members can have photostat copies of particular articles made from journals in the library.

CIVIC PLANNING AND BUILDINGS

ARCHITETTURA. *Vol. XIII. No. 6. June.*
An illustrated leading article on the planning and building of the new town of Sabaudia on reclaimed land on the coast between Rome and Naples. The scheme, which is only in its early stages, has a few dwelling houses completed as well as the civic centre. It is particularly interesting to note the reversal of the usual procedure in this country, where town halls, churches and the other "civic" buildings come last, the first five, ten or twenty years having to pass before civic amenities are provided for. The architects of the buildings illustrated, the Palazzo Communale, the hotel, the church and shopping centre and cinema are G. Cancellotti, E. Montuori, L. Piccinato and A. Scalpelli.

CONSTRUCTION MODERNE. *Vol. XLIX. No. 41. 8 July.*
Villeurbanne, a new suburb to Lyon (Morice Leroux and Robert Giroud), including a scheme of large 12-storey tenements, theatre, swimming bath, hôtel-de-ville, etc., etc. A brilliant, rather overwhelming and inhuman place.

MON. F. BAUKUNST U. STADTEBAU. *Vol. XVIII. No. 7. July.*
Two articles on new village schemes—one for an agricultural settlement with designs for houses and the village centre of church, shops and halls, the other for a new garden village. All the houses are of the now familiar traditional form.

ARCHITECT AND BUILDING NEWS. *Vol. CXXXIX. No. 3421. 13 July.*
Newcastle Police headquarters, courts and fire-station, by Cackett, Burns Dick and Mackellar [*FF. and A.*].

BUILDER. *Vol. CXLVII. No. 4770. 6 July.*
Plans and views of the new Government House, Cyprus, by Sir Aston Webb and Son.

SHOPS

ARCHITETTURA. *Vol. XIII. No. 6. June.*
A pastry shop in Milan. Neat, gay and modern, with some excellent and amusing detail (Melchiorre Bega, architect). Also a smart modiste's shop in Rome (Mario Marchi).

ARCHITECTURAL REVIEW. *Vol. LXXVI. No. 452. July.*
Showrooms for building materials and commodities. A liberally illustrated article.

CHURCHES

BAUMEISTER. *Vol. XXXII. No. 7. July.*
New Catholic and Evangelical Churches in Southern Germany. All are traditional in style.

THEATRES AND CINEMAS

JOURNAL OF THE INSTITUTE OF JAPANESE ARCHITECTS. *Vol. XLVIII. No. 585. May.*
An article which is luckily very well illustrated, the text being in Japanese, on recent Japanese cinemas and theatres.

ARCHITECTURAL FORUM. *Vol. LXI. No. 1. July.*
The Swift and Co. Theatre in the Chicago exhibition, an interesting open-air building (E. A. Schrewe and Nelson).

MONUMENTS

MON. F. BAUKUNST U. STADTEBAU. *Vol. XVIII. No. 7. July.*
Heroic Monuments. An interesting and well illustrated article, symptomatic of the hero-worship in modern Germany.

LABORATORY

CASA BELLA. *Vol. XII. No. 78. June.*
Physics and Chemistry Laboratory in the Vatican observatory at Castel Gandolfi.

MUSEUM

ARCHITECTURAL FORUM. *Vol. LXI. No. 1. July.*
The Avery Memorial Museum, Hartford, Conn. (Morris and O'Connor). A good modern building, includes lecture theatre, research library, etc.

EXHIBITION BUILDINGS

ARCHITECTURAL FORUM. *Vol. LXI. No. 1. July.*
A lively satirical note on the Chicago Century of Progress exhibition second year: "new colour, one new major exhibit, many new concessions, new Midway, post-repeal beverages, free toilets and the same old ballyhoo." The new Ford pavilion is illustrated fully and is worth it, and so are other new exhibition buildings, including the new villages; "there are a dozen of these which run the entire gamut of picturesque architecture and scenery from Holland to Tunis and from the Black Forest to Boston." The "Old English Village" defies comment.

ARCHITECTURAL REVIEW. *Vol. LXXVI. No. 452. July.*
The Penguin Pool at the London Zoo. Illustrated by photographs taken before the tenants took up residence.

INSTITUTIONAL BUILDINGS

BUILDING. *Vol. IX. No. 7. July.*
The R.I.B.A. building described by G. G. Wornum. An excellent description of present state of the building.

ARCHITECT AND BUILDING NEWS. *Vol. CXXXIX. No. 3421. 13 July.*

The Oddfellow building, Oslo (Blakstad and Munthe-Kaas), described by Christian Barman. Includes cinema and restaurant, exhibition hall and offices.

ARCHITECTURAL REVIEW. *Vol. LXXVI. No. 452. July.*

ARCHITECTS' JOURNAL. *Vol. LXXX. No. 2059. 5 July.*

ARCHITECT AND BUILDING NEWS. *Vol. CXXXIX. No. 3420. 6 July.*

A small Masonic lodge at Bocking in Essex, by Burnet, Tait and Lorne and O. G. Armstrong.

BUILDER. *Vol. CXLVII. No. 4770. 6 July.*

Parish hall for St. Alphege Church, Southwark (Milner and Craze [*L.*]), including boys' and girls' club with billiard-rooms, gymnasium, canteen, stage, etc.

SCHOOLS

MON. F. BAUKUNST U. STADTEBAU. *Vol. XVIII. No. 7. July.*

Schools . . . a German school in Helsingfors (Runar Eklund) and a new Volksschule in Gross-Sakrau.

ARCHITECT AND BUILDING NEWS. *Vol. CXXXIX. No. 3421. 13 July.*

New buildings at Somerville College, Oxford, by P. Morley Horder.

ARCHITECT AND BUILDING NEWS. *Vol. CXXXIX. No. 3420. 6 July.*

A Students' Hostel at London University (Edward Maufe [*F.*]), including bed-sitting rooms, common rooms, library, squash court, etc.

LIBRARY

BUILDING TIMES. *Vol. LIV. No. 8. July.*

The new extensions to the London Library, St. James's Square (Mewès and Davis).

DOMESTIC

BUILDER. *Vol. CXLVII. No. 4770. 6 July.*

Illustrations of 16 houses being built at Gidea Park as the result of the recent competition.

BAUMEISTER. *Vol. XXXII. No. 7. July.*

A most peculiar lookout hut, with living quarters, near Stuttgart, built on a reinforced concrete post about 40 feet high and standing 40 feet clear of the hillside.

BYGGE KUNST. *Vol. XVI. No. 5. May.*

Summer houses—or what the Germans call "week-end houses"—in Sweden; mostly lightly constructed timber buildings with neat, compact one- or two-room plans.

HOUSING

MON. F. BAUKUNST U. STADTEBAU. *Vol. XVIII. No. 7. July.*

Housing since 1910. Short article on housing development in Germany.

CASA BELLA. *Vol. XII. No. 78. June.*

Notes on working-class housing. An illustrated article on a number of important details of small flat planning.

CONSTRUCTION

ARCHITECTS' JOURNAL. *Vol. LXXX. No. 2059. 5 July.*

C. W. Glover contributes a supplement on insulated construction. Various materials and types of wall are analysed for their weather, noise, vibration and heat insulating qualities; useful tables of comparative results and drawings. The article is a valuable reference.

MASTER BUILDER. *Vol. XXXVIII. No. 864. June.*

Some notes on tropical buildings, by Guy Holt [*F.*].

TOWN PLANNING

TOWN PLANNING REVIEW. *Vol. XX. No. 8. June.*

Height and bulk in buildings in relation to their requirements and surroundings. An article by H. V. Lanchester [*F.*], followed by a very interesting discussion in which Sir Raymond Unwin, Mr. G. L. Pepler and others took part.

HISTORICAL AND ARCHÆOLOGICAL

THE ANTIQUARIES' JOURNAL. *Vol. XIV. No. 3. July.*

Sir Charles Peers's [*Hon. A.*] anniversary presidential address, which includes much valuable information about Cyprus buildings which Sir Charles has recently examined with a view to their preservation.

QUARTERLY ILLUSTRATED OF THE ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND. *No. 46. 1934.*

Davidian Churches. An article by W. G. Blaikie Murdoch on Scottish Ecclesiastical Architecture of the twelfth century.

ENTREPRISE FRANÇAISE. *Vol. IV. No. 42. 25 June.*

An interesting article on the methods used by the Romans in constructing their roads, based on researches by the American Roads Office, who have constructed full size a typical section of the Appian Way.

COUNTRY LIFE. *Vol. LXXVI. No. 1955. 7 July.*

The architecture of Nepal, by Philip Steegman. A country to which only 150 people other than officials have gained admittance. Illustrated by the author's drawings and photographs.

BIOGRAPHICAL

ARCHITECTURAL REVIEW. *Vol. LXXVI. No. 452. July.*

Sir Ian MacAlister. A leading article on Sir Ian by Sydney D. Kitson [*F.*], and a pencil portrait by Cecil Waller as frontispiece.

THEORY OF ARCHITECTURE

BUILDING. *Vol IX. No. 7. July.*

A choice of elevations. An æsthetic study by R. L. A. Schoemaker, of elevation designing, showing the available alternatives for one building.

QUARTERLY ILLUSTRATED OF THE ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND. *No. 46. 1934.*

Design in relation to building manufacture. A very instructive and interesting paper by Francis Lorne [*F.*] read to the Glasgow Institute of Architects.

Notes

R.I.B.A. CENTENARY CELEBRATION

The new building is rapidly approaching completion, and it is hoped that the opening ceremony will take place some time during the first half of November. The exact date of this ceremony, with full particulars, will be published as soon as possible.

The Centenary Celebration Conference will begin on Wednesday, 21 November, and will continue until Saturday, 24 November. It is hoped that all members who are in a position to do so will reserve these dates, and endeavour to take part in the Conference.

The following is the programme which has been arranged provisionally:

WEDNESDAY, 21 NOVEMBER

9 p.m. to 12 p.m. Reception in the new R.I.B.A. Building.

THURSDAY, 22 NOVEMBER

10.30 a.m. to 1 p.m. Inaugural Meeting.
Address by the President.
Reception of Delegates.

2.30 p.m. to 6 p.m. Visits to Buildings and other places of interest in London.

7.15 for 7.45 p.m. Centenary Celebration Banquet.

FRIDAY, 23 NOVEMBER

10 a.m. to 1 p.m. Visits to Schools of Architecture.
Lectures and discussions in the new R.I.B.A. Building.

9 p.m. to 2 a.m. Dance in the new R.I.B.A. Building.

SATURDAY, 24 NOVEMBER

9.30 a.m. to 1 p.m. Visits to places of interest in London.

A detailed programme will be published as soon as possible.

MR. F. J. MAYNARD [*A.*]

In the report of the work of the R.I.B.A. Unemployment Committee made in the JOURNAL of 23 June, the name of Mr. F. J. Maynard was omitted from among the names of the Committee responsible for the organisation of the work. Some twelve months ago Mr. F. J. Maynard succeeded Mr. L. A. F. Ireland as one of the representatives of the A.A.S.T.A., and has since done much excellent work on the Committee.

VISIT TO FOREST PRODUCTS RESEARCH

By arrangement with the Director, Forest Products Research, a party composed of members of the Science Standing Committee of the Royal Institute of British Architects and others visited the Forest Products Research Laboratory at Princes Risborough, on Thursday, 21 June, and made a tour of the various sections. In the Wood Structure Section an exhibit to demonstrate the relation between growth characteristics and qualities in oak had been prepared, and this proved of considerable interest. In the Timber Mechanics Section the work of investigating the strength properties of various timbers in small clear specimens, and also in structural sizes, was in progress. In the latter operations joists of Canadian spruce were being tested. A special test of the strength of tusk tenon joints was also in progress.

In the Wood Workshop various operations on the spindle moulder, mortising machine, recessing machine and variety turning lathe were watched with amazement by some of us and carefully explained. Later, in the Seasoning Section, the importance of the moisture content as affecting the properties of timber for various purposes was demonstrated, and a chart showing suitable moisture contents of timber for various uses was on exhibition, from which some interesting deductions were made.

The impregnation plant in the Wood Preservation Section was inspected, and the need for preservative treatment of some timbers for certain purposes and the various methods of fully and partially impregnating timbers with preservatives were explained.

In the Entomological Section the exhibits in the museum proved of interest, especially those showing the destruction caused by the Death-watch, Furniture and Powder-post beetles.

In the Mycology Section a useful model was on exhibition which showed how decay in structural timbers was encouraged by well-known unsatisfactory methods of construction, especially in floor joists and flooring. The method of testing the natural durability of various timbers in the Laboratory was also explained, and numerous specimens undergoing tests in incubators, in which conditions of temperature and humidity most favourable for the development of rot-producing fungi are maintained, were seen in progress.

Lack of time unfortunately prevented the Wood Chemistry and Wood Physics Sections being visited.

The visit has undoubtedly served to establish a closer contact between the Royal Institute of British Architects and the Laboratory, and brought home to the members of the party the fact that much information concerning the suitability of various timbers for structural or decorative purposes is available. The services of the Laboratory have not always been utilised as they might have been in the past, and we should realise that this branch of the Department of Scientific and Industrial Research is just as desirous of having their special knowledge utilised as is the now well-known and much valued Department of Building Research.

ANGLO-SWEDISH SOCIETY. HOLIDAY COURSE IN SWEDISH ARCHITECTURE AND THE ALLIED ARTS

The Anglo-Swedish Society is organising a holiday tour to Sweden combined with courses in various cultural subjects, one of which is devoted to Swedish Architecture and the Allied Arts. This course will consist of lectures by eminent architects and professors, study of housing-schemes and decorative art, and also visits to various buildings, industries, etc.

The tour will start on 22 August, and return on 6 September. Excursions to all places of interest from Stockholm have been arranged, full particulars of which can be had from the Secretary of the Society. The price for the tour is £13 5s. tourist class steamer, third-class rail travel, excellent accommodation in Stockholm with bed, breakfast, gratuities and transport. The Society undertakes all arrangements. Application should be made early to the Secretary, Anglo-Swedish Society, 10 Staple Inn, High Holborn, who will be delighted to send full details. The other cultural courses include courses on the Swedish Language, Physical Culture, Gymnastics and Hydro-Electric Engineering.

THE R.I.B.A. FINAL EXAMINATION. THE THESIS

The Board of Architectural Education wish to call attention to the fact that Final Examination Theses should be simply bound into paper board covers. Elaborate bindings are not required. Separate sheets loosely clipped into a spring back or other type of folder, are not desirable. There are no regulations laid down as to size, but it is suggested that ordinary foolscap size (13 in. by 8 in.) is most satisfactory.

ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students R.I.B.A. at the meeting of the Council held on 2 July 1934 :—

BEATSON: Ronald Guthrie Senior, 19 Ewen Street, Takapuna, Auckland, N.2, New Zealand.
BOWES: George William, Tullosview, Balnagash.
BROWN: Cedric Gabriel Richard, Gatley Hill, Cheadle, Ches.
CROOK: Alex Charles, 69 Knighton Church Road, Leicester.
KIRBY: Reginald Alec, 22 Shipley House, Larkhall, S.W.8.
ORPEN: John Joseph Overton, 34 Bedford Square, London, W.C.

NOTES FROM THE MINUTES OF THE COUNCIL

18 June 1934

THE RETIRING HON. SECRETARY AND MEMBERS OF COUNCIL

The Chairman (Mr. H. S. Goodhart-Rendel, Vice-President) referred to the extremely valuable work which Mr. Sydney Kitson had done for the Institute and the profession during his six years' tenure of the office of Hon. Secretary, and on his proposition it was resolved by acclamation that a very cordial vote of thanks be passed in favour of Mr. Kitson.

The Chairman also referred to the services of the other members of the Council who were retiring at the close of the Session, and a cordial vote of thanks was passed in their favour.

THE SECRETARY

The sincere congratulations of the Council were conveyed by acclamation to the Secretary upon the well-earned honour of knighthood which His Majesty proposes to confer upon him.

MR. EDWIN GUNN

The cordial thanks of the Council were conveyed to Mr. Edwin Gunn for his valuable services over many years as the R.I.B.A. representative upon several committees of the British Standards Institution. Mr. Gunn has found it necessary to resign his membership of these committees owing to his departure from London.

OBITUARY

The sincere sympathy of the Council was conveyed to Mr. W. Curtis Green, R.A., in the great loss he has recently sustained in the death of his wife.

R.I.B.A. ARCHITECTURE MEDALS: THE BIRMINGHAM AND FIVE COUNTIES ARCHITECTURAL ASSOCIATION

Mr. H. J. Rowse [*F.*] (Liverpool) was appointed to represent the Council upon the Jury which has been set up in connection with the award of an R.I.B.A. Architecture Medal in the area of the Birmingham and Five Counties Architectural Association.

BRITISH WATERWORKS ASSOCIATION: STANDING COMMITTEE ON WATER REGULATIONS

Mr. R. J. Angel [*F.*] and Major C. F. Skipper [*F.*] were appointed as the R.I.B.A. representatives on the Standing Committee on Water Regulations of the British Waterworks Association for the ensuing twelve months.

THE GENERAL COUNCIL FOR THE NATIONAL REGISTRATION OF PLUMBERS

Mr. Alan E. Munby [*F.*] was appointed to represent the Institute at the annual meeting of the General Council for the National Registration of Plumbers.

PERMANENT SCHEME OF EMPLOYMENT IN THE ARCHITECTURAL PROFESSION

The proposals submitted by the Architects' Unemployment Committee for the setting up of a permanent scheme to deal with unemployment in the profession were approved in principle and the Committee have been asked to formulate a definite scheme.

PRIVATE BALCONIES TO FLATS FOR INFANTS

A memorandum on this matter prepared by the Art Standing Committee was approved for submission to the Minister of Health.

It is hoped to publish the memorandum in the JOURNAL at an early date.

COMPETITIONS FOR TOWN PLANNING AND IMPROVEMENT SCHEMES

The Council approved the report of the Competitions Committee in respect of their negotiations with the Town Planning Institute upon the control of competitions for town planning and "improvement schemes."

It has been agreed with the Town Planning Institute that in order to facilitate the application of the appropriate regulations for competitions, the Royal Institute of British Architects and the Town Planning Institute should in future differentiate between "town planning" and "architectural" competitions. Competitions involving the design, erection and supervision of buildings should be deemed to be "architectural" and governed by the R.I.B.A. Regulations for Architectural Competitions, while those involving the general design and grouping of buildings, but not their erection and supervision, should be recognised as "town planning" competitions and governed by the Competition Regulations of the Town Planning Institute.

The Town Planning Institute Regulations have been revised in consultation with the Competitions Committee and will bear the following footnote: "These Regulations have been framed in consultation with the Royal Institute of British Architects."

"DIRECTIONS TO ASSESSORS" AND "ANSWERS TO QUESTIONS"

Upon the recommendation of the Competitions Committee it has been agreed to insert a note in the "Directions to Assessors" drawing attention to the desirability of ensuring that questions received from competitors should be submitted to the Assessor by the promoters in an anonymous form.

INTERIM REPORT OF THE SPECIAL COMMITTEE ON OFFICIAL ARCHITECTURE

The interim report of the Special Committee on Official Architecture was approved, and it was decided to publish it in the JOURNAL.

THE CONSTITUTION AND FUNCTIONS OF THE PUBLIC RELATIONS COMMITTEE

A memorandum defining the functions of the Public Relations Committee was approved, and will be published in the JOURNAL.

MEMBERSHIP OF THE PUBLIC RELATIONS COMMITTEE

It was decided to invite the four Standing Committees each to appoint one member to serve as an ex-officio member of the Public Relations Committee.

CENTENARY OF THE R.I.B.A.

Letters of congratulation were submitted from the Institute of Southern Rhodesian Architects and the Council of the Incorporated Society of Auctioneers.

MEMBERSHIP

The following members were elected:

As Fellows	6
As Associates	13
As Licentiates	13

Election: 2 July 1934.—Applications for membership were approved as follows :—

As Fellows	6 applications
As Associates	16 ,,

Resignations.—The following resignations were accepted with regret:—

Fellow:	Haydn Parke Roberts.
Associates:	Alphonzo Migotti.
	Alec Nisbet.
Licentiates:	Walter Austin Griffiths.
	William James Heard.
	Samuel Keighley.
	James Edward Pluck.

Transfer to the Retired Members Class.—The following members were transferred to the Retired Members Class:

As Retired Associate: Vivian Edward Young.
As Retired Licentiate: William Henry Herbert Marten.

Allied Societies

SOUTH-EASTERN SOCIETY OF ARCHITECTS

The Annual General Meeting of the South-Eastern Society of Architects was held on Monday, 25 June, at the Royal Institute, when Mr. John Walter Little [*F.*], M.T.P.I. presided, and the following General Officers were elected for the ensuing year:—

President: Mr. R. Goulburn Lovell [*A.*] (Eastbourne).

Vice-Presidents: Mr. Harold Anderson [*F.*] (Canterbury); Col. C. R. B. Godman [*F.*] (Horsham); Mr. Stanley Philpot [*F.*] (Tunbridge Wells); Major F. W. Rees [*L.*] (Croydon); Mr. A. J. Stedman [*F.*] (Farnham).

Hon. Treasurer: Mr. Cecil Burns [*F.*] (Tunbridge Wells).

Hon. Secretary: Mr. Colin H. Murray [*F.*] (Eastbourne).

Hon. Auditor: Mr. John L. Denman [*F.*] (Brighton).

The President presented the report of the Council, and expressed the regret of the members at the loss of the services as Hon. Editor of Mr. Maxwell Aylwin [*F.*] who had been recommended by his doctor to relinquish some of his work.

He also drew attention to the presence of the Rev. Gordon Wilson, an Honorary Member of the Society, who, as Warden of St. Thomas's, Eastbridge, Canterbury, had placed the Undercroft at the disposal of the Canterbury Chapter for an Architectural School. The President felt that nothing but good could result from such an association and offered the sincere thanks of the Society to the Rev. Gordon Wilson for his kindly co-operation.

The Annual Report includes a short financial statement which shows a balance of £184 14*s.* 3*d.*, a statement of membership which now totals 876, and a very satisfactory report on the work of the Education Committee. Reference was made to Mr. Goulburn Lovell's Technical and Historical Lectures at Canterbury, Hastings and Worthing. The following reports were made by the five Chapters:

The Brighton Chapter has now a total membership of 192. During the year two special lectures were held, one delivered by Mr. Sydney Tatchell [*F.*] on the New Form of Contract, and the other by Mr. R. Goulburn Lovell [*A.*] on Town Planning. Eleven Chapter meetings were held during the year. An exhibition of drawings was held at the Annual Meeting.

The Canterbury Chapter has now a total membership of 103. During the year the negotiations with the local authority for the establishment of an architectural department in the School of Art fell through. Through the kindness of the Warden of St. Thomas's, Eastbridge, the Chapter has been able to establish its own Architectural School in the Undercroft, where in February an exhibition of the students' drawings was held. Twelve Chapter meetings were held during the year.

The Croydon Chapter has a membership of 206. During the year it has held two joint luncheons with the Master Builders' Association at which addresses were delivered. It has been active in the furthering of the Town and County Planning Act and the Unemployment Register.

A successful soirée and exhibition of Students' drawings was held in March at which Mr. Hugh Macintosh [*F.*] delivered a lecture on Scottish Castles. Seven Chapter meetings were held during the year.

The Guildford Chapter has now a total membership of 209. During the year no fewer than six public lectures were delivered, ending up with a lecture by Mr. Edward Maufe [*F.*] on the proposed New Cathedral at Guildford. Visits were made to Winchester and to the Cement Works at Greenhithe. Twelve Chapter meetings were held during the year.

The Tunbridge Wells Chapter has now a total membership of 166. Following the annual meeting the Committee entertained the members at a supper after which Mr. F. R. Yerbury, [*Hon. A.*] delivered an informal talk on Architectural Conditions in Germany and Russia. The Hastings School of Architecture has made such progress that application has been made to have the school recognised for exemption from the "Intermediate Examination of the R.I.B.A." Ten Chapter meetings were held during the year.

Reference is also made to the work of the Consultative Committee of Architects and Builders, and to the continually increasing work of the Voluntary Advisory Panels which deal with from 600 to 700 plans each month. The Chapters are finding a difficulty in staffing these panels and members other than those on the Committees of the Chapters must come forward in larger numbers if the valuable work is to be maintained.

The Council congratulate Mr. Alwyn Underdown, and Messrs. Paxton Watson and Son, and Oliver Law on having drawings and designs exhibited at this year's Academy.

The Council propose that a most sincere vote of thanks be accorded to the following officers for their work of the past year:—The Hon. Secretary (R. Goulburn Lovell); the Hon. Treasurer (Cecil Burns); the Hon. Editor (Maxwell Aylwin); and the Hon. Secretaries of the five Chapters:—K. E. Black, H. C. Assenden, F. Sutton Smith, N. D. Quick, G. Gregor Grant.

BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION

Annual Meeting

The annual general meeting of the Association was held on 12 May at Maidenhead, a luncheon being held first at the Crown Hotel.

The President (Mr. Stanley Hamp [*F.*]) delivered an address in which he stressed the important part played by the Allied Societies in the efficient organisation of the profession throughout the country, and urged the council of the Association and the executives of the branch societies to proceed with a definite programme of work in which every individual member of the Association could be called upon to take an active part in one or more of the many ways in which architects are specially qualified to assist the community.

The retiring officers of the Association were re-elected as follows, on the proposition of Mr. E. Steward Smith:

President, Stanley Hamp [*F.*].
Hon. Treasurer, T. Talford Cumming [*F.*].
Hon. Secretary, E. A. L. Martyn [*A.*].
Hon. Auditor, C. B. Willcocks [*F.*].

It was reported that the branch societies had made the following elections to the Council of the Association:

Berks: *Vice-President*, Mr. E. Steward Smith [*F.*]. *Members of the Council:* S. E. Burrett, H. M. Lewis [*A.*], W. H. Rising [*F.*], J. T. Saunders [*F.*], A. W. Saxon Snell [*F.*], F. E. Wapshott [*L.*] F.S.I., A. B. West [*F.*], F. Woods [*F.*].

Bucks: *Vice-President*, Mr. G. Langley Taylor [*F.*]. *Members of the Council:* A. R. Borrett [*A.*], A. Foxley [*F.*], W. D. Hartley [*A.*], C. S. Kimpton [*A.*], H. J. Stribling [*A.*].

Oxon: *Vice-President*, Mr. W. Austin Daft [*A.*]. *Members of the Council:* F. E. Openshaw [*A.*], R. F. Dodd [*F.*], T. Rayson [*F.*], G. Hastwell Grayson [*F.*], N. W. Harrison [*F.*].

The President reported that steps had been taken by the council to form a Joint Consultative Committee of Architects, Builders and Quantity Surveyors for the area of the Association and that he hoped it would result in the smoothing out of any difficulties that might arise in connection with building schemes. The meeting unanimously approved the proposal.

After the meeting all who were present proceeded on a round of visits which had been arranged by the members of the Berkshire Society. The first stop was made at the Jesus Almshouses at Bray, where the party was welcomed by the warden, and shown round the quadrangle chapel and pleasant grounds and gardens. Ockwells Manor was next visited, where Sir Edward Barry, the owner, kindly permitted his beautiful fifteenth-century house and grounds to be inspected and himself took round sections of the party and explained the history of the different parts of the building. After this a visit was paid to the celebrated fourteenth-century church of Shottesbrooke, the architectural features of which were described by Mr. C. B. Willcocks, while Mr. H. Morley gave an account of the interesting brasses that are in the church.

On returning to Maidenhead the other two branches of the Association were entertained to tea at the "Show Boat" restaurant by the Berkshire Society of Architects, the visit to a structure of ultra-modern type forming an interesting climax to a round of visits to historic buildings.

SCHOOL NOTES

THE LIVERPOOL SCHOOL OF ARCHITECTURE

The opening of the annual exhibition, which is at the same time the closing ceremony of the session, was made notable this year by an extremely interesting and amusing address by Mr. Charles Marriott on architecture and the teaching of architecture, viewed from an unusual angle, that of a layman with a highly developed critical faculty. When Mr. Marriott addressed the R.I.B.A. in December last on the subject of Contemporary London Buildings, he offered as his *apologia* the old saying that you cannot both be in the procession and look out of the window. Mr. Marriott sees a good deal from his particular window, and he possesses in addition the enviable faculty of interesting other people, including architects, in what he sees; so that his address at the opening of the school exhibition was as informative as it was entertaining.

Mr. Marriott expressed, in a very simple and telling fashion, the extension of the architect's responsibility, the change from designing mainly in terms of handicraft execution to designing mainly in terms of mechanical execution, the right attitude of the architect towards the contemporary situation, and the controversies caused by the different meanings different people attached to such words as beauty and tradition, which last, he said, depended upon whether it was taken to be the repetition of forms or the continuation of principles. Concerning beauty, he amused the audience by saying that when a bishop or an R.A. said a picture was ugly, what he meant in effect was that it was lacking in sex-appeal.

He also had a delightful story concerning symmetry. The owner of a very formal house and garden which contained amongst other features two belvederes, or garden-houses, symmetrically disposed, had occasion to punish his small son by locking him up in one of them. Going back in the evening to release him, he heard howls proceeding from the other garden-house, and in some surprise asked his gardener who it was that had been shut in there. The gardener replied that he had locked his own son inside it. "Why? what has he done wrong?" "Oh, nothing, Sir. I put him there for the sake of symmetry."

Mr. Marriott concluded by reminding his audience that a school in a university, with its atmosphere of liberal studies, afforded the best opportunity for a more searching study of the past, and a broader contact with problems—many of them outside what was formerly regarded as the range of architecture—that were needed in training an architect to-day.

The exhibition itself, which is attractively displayed in the spacious studios of the new school building, is interesting for its scope and variety, and for the visible results of experiments in Group Research. This is particularly so in the fourth year, which exhibits a fine series of drawing embodying the results of study by various groups, numbering from five to eight members, of specific problems such as Housing, Schools, Art Galleries and Museums, Hotels, Stores and Banks. This is a method that is being applied also to Historical Research in the second year, and if its value to the individual is on a par with the visible results as expressed by the drawings here produced, it is probably capable of still further development.

The most interesting features of the exhibition, apart from this and from the six-hour sketch designs which are a startling form of "light relief," are the theses presented for the final examination by fifth-year students. The subjects are varied, and include a market hall, a school of engineering, a prison, a casino, an agricultural college, a Roman Catholic cathedral (very different from either of those in Liverpool), a tourist hotel, a sports centre, a composite laundry, and many others. All are within the scope of practical politics, and indicate a gradual trend towards reason and economy rather than the unlimited and unrelated building of castles in the air. It is obvious that the students themselves are facing up to the practical problems of the day, away from the purely academic and the reactionary.

ARCHITECTURAL ASSOCIATION

The following notes were contributed by a student:—

One of the most significant events of the term was undoubtedly the lecture by Mr. Dudok, and the concurrent exhibition of his works in the A.A. Exhibition Room.

For 25 years Mr. Dudok has been municipal architect at Hilversum. The result has been that Hilversum has gained not only a logical town plan but a completely unified architectural expression in three dimensions. In regarding the house as a place of seclusion, he differs from the more hygienic "machine to live-in" school of architects. His glass houses he reserves for week-end or seaside houses, where a closer connection with the open air is desirable. The glass façade of the Beehive Store at Rotterdam arose from the advantages to be gained from seeing wares in daylight. This human approach to design combined with his experiment with new architectural forms—"A creative spirit aims at form innovation"—has made Mr. Dudok one of the few contemporary architects able to achieve characteristic forms with modern materials for many and divergent types of building.

A most successful visit was paid to the Empire Swimming Pool and Arena at Wembley by the 3rd Year. Sir Owen Williams, conducting the party in person, gave a most interesting talk. Visits have also been made to the new R.I.B.A. building, the Gidea Park Modern Homes Exhibition, and London University, while the 2nd Year spent a most profitable afternoon at Messrs. Trollope and Colls stoneyards.

The 3rd is at present the leading Year at cricket. At the annual sports, the 2nd and 4th Years tied for the first place. For the new sports trophy, H. Tayler's design has been selected. The small silver cup with engraved figures has a base inlaid with different woods and is crowned by a small group of figures.

Other Notes of Interest

The School Authorities invite all members of the R.I.B.A. to visit the Annual Exhibition of Students' Work from 16 July to 28 July, 10 a.m.—6 p.m.

The Annual Prizegiving will be held on Friday, 13 July, at 3.30 p.m. An address will be given by the Rt. Hon. The Viscount Leverhulme, and the prizes distributed by Viscountess Leverhulme.

The Leverhulme Scholarship has been awarded to Mr. G. E. Magnay of the Newcastle-upon-Tyne Royal Grammar School. Applications for this scholarship, which provides for fees, maintenance, and travel allowance, should be made not later than 1 June each year.

Applications for the Public School and Open Entrance Scholarships should be made by 1 July each year.

The A.A. Excursion this year is in August, and is to Norway. The programme has been so arranged as to give members of the party an opportunity of seeing both the best of the old and new buildings in Norway, besides some of the finest scenery. A number of students will accompany the party.

WELSH SCHOOL OF ARCHITECTURE

A party of 35 from the Welsh School of Architecture, the Technical College, Cardiff, paid a visit to London on Tuesday, 3 July.

Arriving at Paddington at 11.30 the members of the school were taken by private bus on a route passing many buildings of note, lunch being taken at the motor bus terminal station at Victoria. In the afternoon Broadcasting House, the Headquarters of the B.B.C., was visited, and the later part of the afternoon was spent in the new building now being erected for the Royal Institute of British Architects, where most thorough arrangements had been made in order that the visit should be of maximum value to the school. The members of the party were shown round the structure, which is nearing completion, by Mr. P. Long, the Clerk of Works, and Messrs. P. G. Freeman and L. J. Young. At the close of the visit Mr. Grey

Wornum [*F.*] gave an interesting talk on the building, dealing with numerous points in connection with its planning, construction and decoration.

EDINBURGH COLLEGE OF ART

The following scholarships have recently been awarded by the Board of Management of the Edinburgh College of Art to students of the School of Architecture of the College:

Post-Diploma Scholarships of £120 for the Study of Town Planning.
Alexander E. Gordon.
Rona H. Inch Morrison.
Robert S. Morton.
Alan Reiach.
William Innes Thomson.

Travelling Scholarship of £450 for America.
Alexander W. Varcoe.

Travelling Scholarship of £250 for Europe.
William R. Ashcroft.

Fellowships for research in Architecture and Town Planning have been awarded to Robert H. Matthew and William T. Sutherland.

Notices

THE R.I.B.A. KALENDAR 1934-35

The attention of members is drawn to the leaflet enclosed with the JOURNAL issued on 23 June. Changes of address, etc., for inclusion in the forthcoming issue of the Kalendar must be notified to the Secretary, R.I.B.A., BEFORE SATURDAY, 1 SEPTEMBER.

COMPETITIONS

The Council and Competitions Committee wish to remind members and members of Allied Societies that it is their duty to refuse to take part in competitions unless the conditions are in conformity with the R.I.B.A. Regulations for the Conduct of Architectural Competitions and have been approved by the Institute.

While, in the case of small limited private competitions, modifications of the R.I.B.A. Regulations may be approved, it is the duty of members who are asked to take part in a limited competition to notify the Secretary of the R.I.B.A. immediately, submitting particulars of the competition. This requirement now forms part of the Code of Professional Practice, in which it is ruled that a formal invitation to two or more architects to prepare designs in competition for the same project is deemed a limited competition.

THE USE OF THE TITLES "CHARTERED ARCHITECT" AND "REGISTERED ARCHITECT"

Now that the Registration Act is in force, the Council have been asked to give advice with regard to the best way to use the title "Registered Architect" by members of the R.I.B.A. who have been placed on the Register, and who already have the right to use the designation "Chartered Architect."

The Council recommend that members of the R.I.B.A. who have been registered should use the designation "Chartered and Registered Architect."

CESSATION OF MEMBERSHIP

Under the provisions of Bye-law 21 the following have ceased to be members of the R.I.B.A.:—

As Fellow: Harold Bertram Challen.
As Licentiate: Arthur Larkin Parker.

Competitions

COMPETITION FOR PROPOSED NEW COUNCIL OFFICES, MARKET BOSWORTH

The Competitions Committee desire to call the attention of Members to the fact that the Conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

BELFAST: MEMORIAL ASSEMBLY HALL

The Governors of Methodist College, Belfast, invite architects resident in Ireland to submit in competition designs for a new Memorial Assembly Hall in the grounds of the Methodist College.

Assessor: Mr. R. S. Wilshere [*F.*].
Premiums: £100 and £50.
Last day for questions: 2 July 1934.
Last day for receiving designs: 31 August 1934.

BELFAST: SANATORIUM EXTENSION

The Tuberculosis Committee of the Belfast Corporation invite architects who have been resident in Northern Ireland since 1 March 1933, to submit in competition designs for an extension and improvements to the Municipal Sanatorium at Whiteabbey.

Assessor: Mr. R. S. Wilshere [*F.*].
Premiums: 500, 200 and 100 guineas.
Last day for questions: 28 April 1934.
Last day for receiving designs: 31 July 1934.

SWINDON: PROPOSED TOWN HALL EXTENSION

The Town Council of Swindon propose to hold a competition for Extensions to the present Town Hall, and Mr. A. B. Knapp-Fisher [*F.*] has been appointed by the President of the R.I.B.A. to act as Assessor. Conditions have not yet been drawn up.

SWINTON AND PENDLEBURY: NEW MUNICIPAL OFFICES

The Swinton and Pendlebury Urban District Council invite architects of British nationality to submit in competition designs for new Municipal Offices.

Assessor: Mr. James R. Adamson [*F.*].
Premiums: £150, £100 and £75.
Last day for questions: 11 June 1934.
Last day for receiving designs: 17 August 1934.

TUNBRIDGE WELLS: NEW CIVIC CENTRE

The Corporation of the Borough of Royal Tunbridge Wells invite architects to submit in open competition designs for a new Civic Centre to be erected on a site in Calverley Parade. The units comprising the scheme are as follows :—

(*a*) Council suite and Municipal Offices.
(*b*) Assembly Hall.
(*c*) Police Station and Police Court.
(*d*) Fire Brigade Station.
(*e*) Public Library and Municipal Museum.

Assessor: Mr. E. Berry Webber [*A.*].

Premiums: £300, £200, £100 and £75.

Last day for questions: 6 July 1934.

Last day for receiving designs: 22 September 1934.

WOLVERHAMPTON: MUNICIPAL ASSEMBLY HALLS

The Corporation of Wolverhampton invite architects of British nationality, resident in the British Isles, to submit in competition designs for new Municipal Assembly Halls.

Assessor: Mr. C. Cowles-Voysey [*F.*].

Premiums: £350, £250 and £150.

Last day for questions: 21 May 1934.

Last day for receiving designs: 1 October 1934.

COMPETITION RESULT

SLOUGH: NEW COUNCIL OFFICES

1. Messrs. C. H. James [*F.*] and S. Rowland Pierce [*A.*].
2. Messrs. Edward Armstrong and Oscar A. Bayne [*AA.*]
3. Messrs. W. H. McNicol and W. N. Spence [*AA.*].

Special mention to Mr. D. H. McMorran [*A.*] and Messrs. Pite, Son and Fairweather [*FF.*].

Members' Column

PARTNERSHIP WANTED

ASSOCIATE (B.A.Cantab.) with small practice and good connections is anxious to join established London architect who would be glad of some assistance with view to cutting overhead expenses. Capital available if required.—Box No. 6734, c/o Secretary, R.I.B.A. 9 Conduit Street, W.1.

NEW PRACTICE

MR. BERNARD H. DALE [*Student*] has commenced practice at 23 London Road, Southampton, and will be pleased to receive trade catalogues, etc.

OFFICES TO LET

A.R.I.B.A., about to retire from practice, is desirous of letting three good, well-lit, furnished offices on top floor in Charing Cross neighbourhood. Lift. Rent £100 or by arrangement.—Apply Box No. 1674, c/o Secretary, R.I.B.A., 9, Conduit Street, W.1.

PARTNERSHIP WANTED

SURREY Architect with a growing practice would like to get in touch with another practising architect or assistant architect with a view to a partnership arrangement.—Box No. 1774, c/o Secretary, R.I.B.A., 9 Conduit Street, W.1.

Architects' Benevolent Society

PENSION AND FAMILY PROVISION SCHEME FOR ARCHITECTS

The provision of an adequate pension when working days are over has been a matter of grave concern to the professional man since interest rates on gilt-edged and other safe stocks have fallen with no immediate prospect of recovery. There was a time when a few thousand pounds meant comfort, but those days have gone, and the scheme of pension and family insurance outlined below makes its appearance at a most opportune moment.

The scheme has been formulated by the Insurance Committee of the Architects' Benevolent Society and is available to all members of the R.I.B.A. and its Allied and Associated Societies. An adequate pension can be secured, fixed in amount, and in every way guaranteed, together with the benefit of a widow's pension, payable for life and similarly guaranteed, if the member does not reach retirement age.

The scheme is designed on the broadest lines and the member without dependants may take advantage of the pension benefit alone or the pension can be commuted for a cash sum if desired.

BENEFITS UNDER THE SCHEME

The benefits under the scheme include:—

(1) A Member's Pension, which may be effected for units of £50 per annum, payable monthly and commencing on attainment of the anniversary of entry nearest to age 65. This pension is guaranteed over a minimum period of five years and payable thereafter for the remainder of life.

(2) The Beneficiary's Pension, payable as from the anniversary mentioned in Benefit No. 1, but to the widow (or other nominated beneficiary) if the member dies before age 65. The amount of this pension is adjusted in accordance with the disparity between the ages of the member and his wife.

(3) Family Provision. Under this benefit a payment of £50 yearly is made to the dependant from the date of death of the member prior to age 65 until attainment of the anniversary previously mentioned, after which Benefit No. 2 becomes available.

Provision can be made for any number of units (of £50 per annum) up to a maximum of £500 per annum.

By adopting a scheme which is limited to members of the architectural profession, the Committee has been able to secure more advantageous terms than would be obtainable by members individually.

Members are entitled to claim rebate of Income Tax on their periodical contributions to the scheme both in respect of pension and of family provision benefit.

A leaflet is enclosed with this number of the JOURNAL and full particulars of the scheme will be sent on application to the Secretary, A.B.S. Insurance Department, 9 Conduit Street, W.1.

R.I.B.A. JOURNAL

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